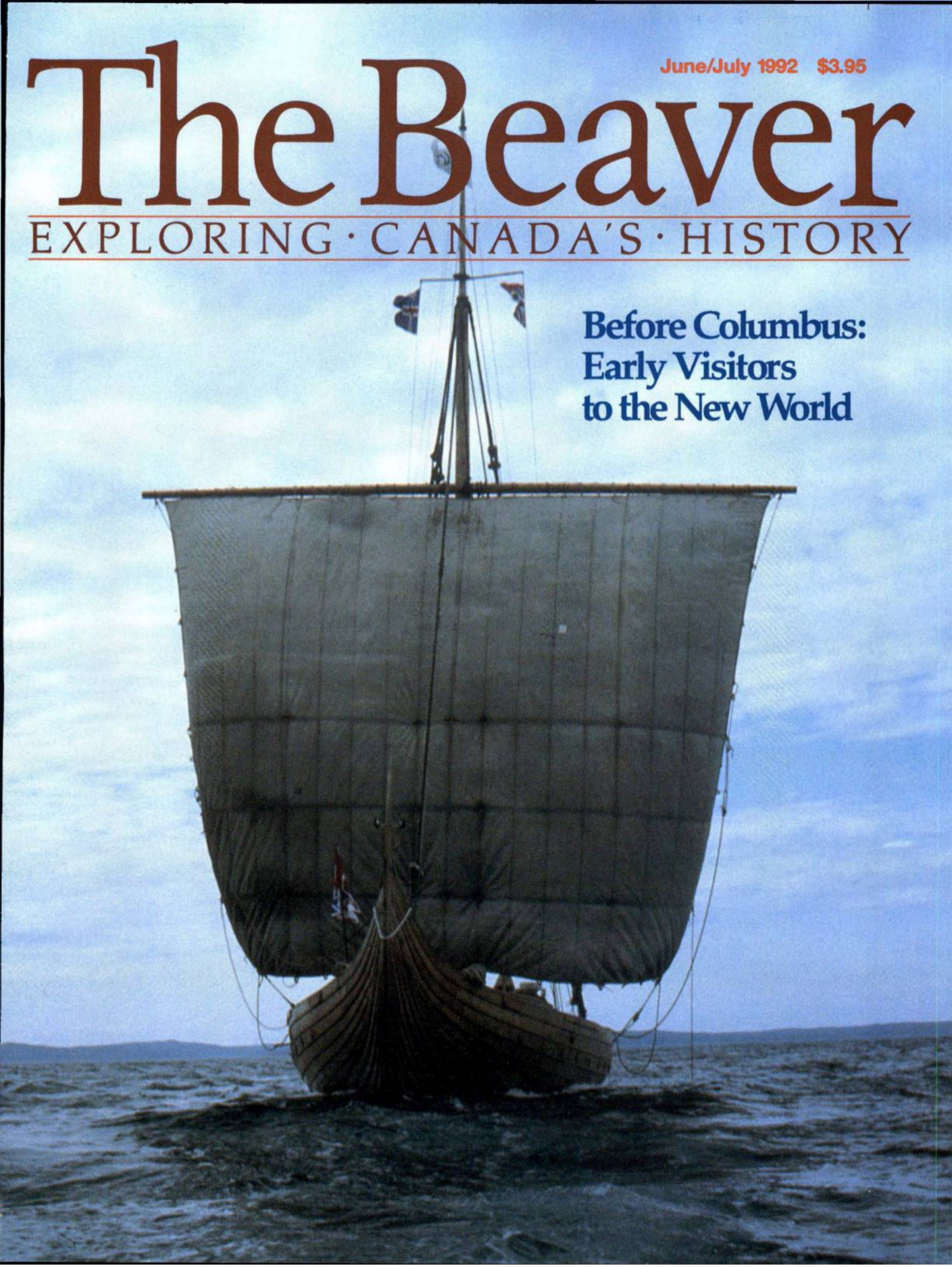
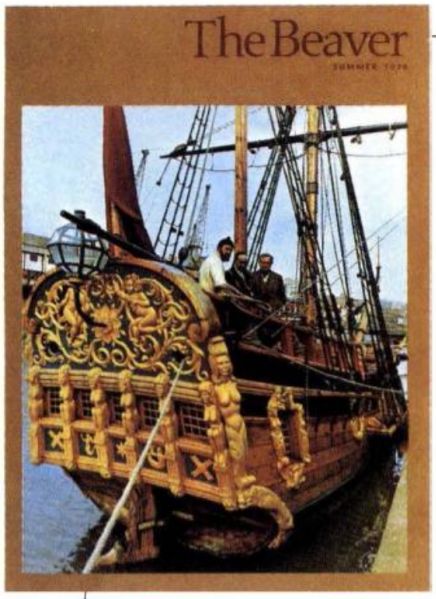
June/July 1992 $3.95

The Beaver

EXPLORING · CANADA'S · HISTORY

Before Columbus: Early Visitors to the New World





The Beaver

BACK ISSUES FOR SALE

The Beaver is a magazine that never loses its currency. Back issues are kept and read again and again. We are now offering a selection of outstanding issues from the 1970s, available, while supplies last, for **$5.00 each** postage paid. Issues included in this special offering are:

SUMMER 1970 — Leacock on the North / Wreck of the Emma Jane /HBC ships of three centuries / Canoe travels of Sir George Simpson /The Mistassini Cree / Lower Fort Garry / Airmen adventurers.

AUTUMN 1972 — Malaspina on the Northwest Coast / History in a prairie school /Baker Lake wall hangings / Along the Peace and Parsnip rivers / Bird colonies of Thule / Lord Selkirk's Baldoon colony / Treaty-making, 1899 / Eskimo art, real and imitation.

WINTER 1973 — The art of Allen Sapp / Death on the *Unicorn* / Temples in the wilderness / By train to Fort McMurray / The beauty of Ellesmere and Axel Heiberg Islands / The "Old House" at Albany / The Burntwood Carrying Place /Pangnirtung.

AUTUMN 1974 — The first Jews in Winnipeg / The Hare Indians / E.E. Rich on Bibye Lake, HBC Governor / Dewey Soper explores Baffin Island / Councillors of Assiniboia / Arctic sketches by James Houston / Canada's first war plane / A woman doctor in the old West.

WINTER 1974 — Artist Lorne Bouchard in the Eastern Arctic / The Red River Academy / Cumberland House 1774-1974 / "Steamboat Bill" /The Muskoxen of Bathurst Inlet / Harvesting the Northern seas / A library for Dawson City / Cannons in Canada.

SUMMER 1976 — Custer and the Canadian connection / The hermit of Good Hope / Paul Rand's West / E.E. Rich on fur trade diet and drugs / Seven rivers North / W.O. Douglas on the Quangwak affair / Sod-house pioneers.

AUTUMN 1977 — Hospital boys of the Bay / Iron man of the Yukon / The Eskimo: First Contacts / Fire and the fur trade / An Indian missionary and his English bride / The Grand Rapids tramway / The silent earth-movers / Charlotte de Rochblave: Métisse teacher.

AUTUMN 1979 — Music of the Inuit / Art Schade, bush pilot / The wisdom of the elders / A camera on the marsh / The port of Churchill / Parr, artist of West Baffin /Lord Selkirk's Canadian financier.

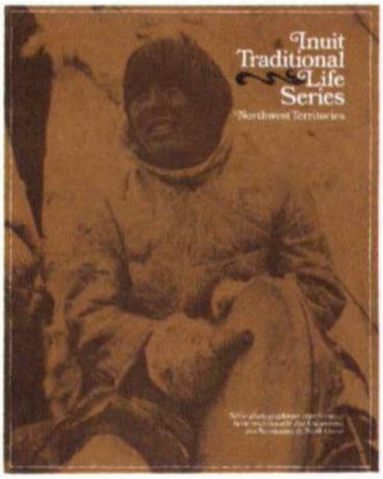
(Limited numbers of most other issues from the 1970s also available. Write to us for a complete list).

THE REMARKABLE ULU KNIFE

Specially made for the Hudson's Bay Company, these high quality ulu knives bring a Northern tradition into your kitchen.

This all-purpose knife, used by Inuit women for centuries, adapts easily to modern cooking and is ideal for all kinds of chopping and slicing.

Only **$36.98** postage paid.*
(Manitoba residents please add 7% sales tax on ulu knives and Inuit prints.)



Sepia-toned prints of early photographs that portray the Inuit way of life at the turn of this century. On quality paper suitable for mounting. Print size 11" x 14". Portfolio of 24 prints **$6.98.**

To order send cheque or money order payable to *THE BEAVER*, 450 Portage Avenue, Winnipeg, Manitoba, R3C 0E7

(**Please note:** All Canadian orders please add 7% Goods and Services Tax)
(See tax table page 60)

FOUNDED 1920

June/July 1992
Vol. 72:3
Issued May 1992
$3.95

Editor:
Christopher Dafoe
Managing Editor:
Carol Preston

Advertising Representative:
Sandra Waller
496 Cranbrooke Ave.,
North York, Ontario,
M5M 1N7
(416) 782-7401.

Advisory Board:
Shirlee A. Smith
Michael Bliss
William Nobleman
Rolph Huband

Cover:
Norse Ship
Gaia,
North Atlantic, 1991.

THE BEAVER: Exploring Canada's History (ISSN 0005-7517) is published bi-monthly by The Governor and Company of Adventurers of England Trading into Hudson's Bay, known as the Hudson's Bay Company, 450 Portage Avenue, Winnipeg, Manitoba, Canada R3C 0E7. (204) 786-7048.

U.S. MAILING ADDRESS: THE BEAVER Magazine, c/o H.A. & J.L. Wood, Inc., Box 329, Pembina, North Dakota 58271-0329.

ANNUAL SUBSCRIPTION: (6 issues) $21.50 (Canada and United States). SINGLE COPY $3.95. OTHER COUNTRIES ANNUAL SUBSCRIPTION $28.

PUBLICATIONS MAIL REGISTRATION NO. 1401.

CANADIAN POSTMASTER: Send address changes to THE BEAVER Magazine, 450 Portage Avenue, Winnipeg, Manitoba R3C 0E7.

U.S. SECOND-CLASS MAIL REGISTRATION NUMBER: USPS 759-610.

U.S. POSTMASTER: Send address changes to THE BEAVER Magazine, c/o H.A. & J.L. Wood, Inc., Box 329, Pembina, North Dakota 58271-0329.

Second class postage paid at Winnipeg and at additional mailing office.

While every care will be taken of manuscripts and illustrations submitted, no liability will be assumed for loss.

COPYRIGHT © 1992 by Hudson's Bay Company. All rights reserved. Reproduction without written permission of the publisher is strictly forbidden.

GST Registration Number: R 102420296.

PRINTED IN CANADA

The Beaver

EXPLORING · CANADA'S · HISTORY

4 EXPLORATIONS
Confederation summer.

6 NORTHERN APPROACHES
Before Columbus: Early European Visitors to the New World.
BY ROBERT MCGHEE

24 HURRICANE
Railcars to fighter planes: A Canadian industry goes to war.
BY DAVID D. KEMP

33 A TALE OF THREE SETTLEMENTS
Lord Selkirk and his North American agents.
BY J.M. BUMSTED

42 JOURNEY OF A MIND
The genius of Alexander Graham Bell.
BY MARCUS VAN STEEN

43 WHATEVER HAPPENED TO CONFEDERATION?
Writers of history and the Founding Fathers.
BY CHRISTOPHER MOORE

56 BOOKS / 62 THE PACKET

Confederation Day, Ottawa, 1867.

Confederation Summer

The crowds that gathered before the new Parliament Buildings in Ottawa 125 years ago on 1 July 1867 had much to be thankful for. Clouds had been observed over the city the night before, but the new day was warm and sunny with a light breeze to take the edge off the early summer heat. The fine weather was seen as a favourable omen. It was a good day to launch a new nation.

There was satisfaction that day as well that all this had come about peacefully. The links with the "mother country" had not been violently severed. There had been discussion and consensus. No blood had been shed.

To be sure, there had been acrimony and civil disturbance at an earlier date, but after the granting of responsible government the journey toward nationhood had been smoother. Men of all political parties had

1867

participated in the planning of the new Dominion and, for the moment at least, all was harmony and goodwill. The founding peoples stood together on that bright July day and imagined an eternal summer.

The prospects were pleasing, but some Canadians felt that Confederation had been thrust upon them. From the 1840s on it had been clear that Britain was becoming increasingly impatient with its North American colonies. Disraeli compared them to millstones around his neck and other British politicans, including Earl Grey and Lord John Russell, gave every indication that they yearned for the day when the colonies would learn to shift for themselves. There was a certain resentment of this attitude in the Canadas and in the Maritime colonies, a feeling that "Mother doesn't love us anymore". There was also a growing concern that independent colonies would soon be picked off, one by one, by the Americans.

One of the first to see that a Confederation of the colonies would stand a better chance of enduring against American encroachment was Alexander Galt who has been called, by some, the "true Father of Confederation". In 1858, on a journey to England, he broached the subject with the British colonial secretary, Bulwer Lytton, with no effect. At home, however, he obtained the support of the Irishman D'Arcy McGee and the Confederation idea was gaining ground when the outbreak of the American Civil War came to concentrate colonial minds. For the moment, American expansionists were preoccupied with the struggle at home, but the situation, nevertheless, was dangerous. The future citizens of the Dominion of Canada were suddenly aware that the earth was shifting beneath their feet. The old order was changing and old certainties were passing away. D'Arcy McGee put it dramatically: "The shot fired at Fort Sumter was the signal gun of a new epoch for North America which told the people of Canada, more plainly than human speech can ever express it, to sleep no more, except on their arms — unless in their sleep they desire to be overtaken and subjugated."

In the same debate, George Brown put it more directly, and he spoke for many: "The civil war in the neighbouring republic; the possibility of war between Great Britain and the United States; the threatened repeal of the reciprocity treaty; the threatened abolition of the American bonding system; the unsettled position of the Hudson's Bay Company, and the changing feeling of England as to the relations of great colonies to the parent state; all combine at this moment to arrest attention to the gravity of the situation and unite us all in one vigorous effort to meet the emergency like men."

Indifference in the "motherland" was also shifting to concern as change quickened. In a speech to the British House of Commons in 1862 the Secretary for War, Sir George Lewis, stressed the importance of uniting the colonies before granting independence: "I for one can only say that I look forward without apprehension, and I may add, without regret, to the time when Canada might become an independent state, but I think it behooves England not to cast Canada loose or send her adrift before she has acquired sufficient strength to assert her own independence."

Once the wheels began to turn on Confederation there was no turning back. With the American war over and renewed interest in the doctrine of "manifest destiny" on the part of the Americans it became imperative that the British North American colonies be drawn together, even at the cost of a bit of concerted arm-twisting in the Maritime colonies. (The U.S. House

of Representatives complained in 1867 that Confederation violated the Monroe Doctrine. After all, everybody knew that Canadians longed to join the United States). Canada grew rapidly after 1867, with the inclusion of Rupert's Land and British Columbia taking place with what some regarded as unseemly haste. It was, in many ways, a case of "define your borders or they will be defined for you".

Everybody was not happy on that first of July in that long ago summer of Confederation. Some felt that they had been frog-marched into the union and there was a small tide of resentment, especially, in the two Maritime provinces, Nova Scotia and New Brunswick. While others rejoiced, the *Acadian Recorder* newspaper, in its issue for 1 July 1867, lamented the loss of independence: "Yesterday's sun gleamed bright on a free country, on a British Colony — we feel our vanity will be excused in saying — the most glorious gem in the coronal of Great Britain." The *Acadian Recorder* lamented the loss of liberty: "Yesterday . . . Nova Scotia was free and yesterday was the Sabbath. 'A calm before the storm' has become proverbial, and it may be taken as significant that this quiet stillness of the revered day should come before the storm of revolution that has been thrust upon us — an unwilling people." The editorial went on to call George-Etienne Cartier a "traitor", Alexander Galt a "secret intriguer", D'Arcy McGee a "cabbage garden rebel" and Charles Tupper a "betrayer" of his people.

While intermittent showers fell on Nova Scotia and New Brunswick and while Prince Edward Island and Newfoundland stood aloof offshore, others basked happily in the sunshine of a new era. There might be difficult days ahead and the Americans were still likely to make difficulties, but for the moment there was time to rejoice and count blessings.

George Brown's *Globe* newspaper had no doubts about the identity of the real Father of Confederation: "Let us gratefully acknowledge the hand of the Almighty Disposer of Events in bringing about this result, pregnant with so important an influence on the condition and destinies of the inhabitants of these Provinces, and of the teeming millions who in ages to come will people the Dominion of Canada from ocean to ocean, and give it its character in the annals of time."

Across the new Dominion church bells rang and royal salutes thundered out from the batteries as the day of Confederation dawned. In Ottawa few had slept. There had been a midnight bonfire and a 101-gun salute. There was jubilation in Toronto, Montreal, Kingston and Quebec. In Halifax some anti-confederationists had hung crepe on their doors and a flag was seen flying at half-mast, but the general mood was enthusiastic. People welcomed the new order.

In Ottawa, at the centre of it all, stood John A. Macdonald. He had worked long and hard for this day, but his task was far from over. Great struggles lay ahead. For the moment, however, he was content to enjoy the sunshine. There was a ceremony with Governor-General Monck in the Privy Council chamber, the dignitaries were acknowledged and then they all went outdoors to review the troops and mix with the crowd. It was high noon.

As yet there was no national flag and no national anthem, nor would there be for many long years. Edward Hartley Dewart had offered a *Confederation Ode* and, even though it was not very good, the *Globe* had printed it. The first stanza ran: "God bless our noble Canada!/God bless the new Dominion!/ Where

Canada cast adrift.

law and liberty have sway,/Not one of all her sons today/ Is Tyrant's serf or minion." It may have been too soon for national songs and flags. It had all happened so quickly. We were a nation, but we hardly knew ourselves or where we were going. Some few had an inkling of what we might become. In February 1865, speaking to the legislative assembly of Canada in Quebec City, Henri Joly de Lotbinière made an inspired suggestion: "I propose the adoption of the rainbow as our emblem. By the endless variety of its tints the rainbow will give an excellent idea of the diversity of races, religions, sentiments and interests of the different parts of the Confederation. By its slender and elongated form the rainbow would afford a perfect representation of the geographical configuration of the Confederation. By its lack of consistence — an image without substance — the rainbow would represent aptly the solidity of our Confederation. An emblem we must have, for every great empire has one; let us adopt the rainbow."

Now, as we celebrate 125 years of Confederation in the summer of 1992, the rainbow may be the emblem we are all looking for as squalls and storm-clouds beset the nation.

— **Christopher Dafoe**

NORTHERN

Five hundred years ago, Christopher Columbus set out on the voyage which brought the New World to the attention of Europe. That voyage led directly to the European colonization of the West Indies, South and Central America, and the establishment of New Spain. Most of the countries of Latin America trace their European history from 1492. The United States has also adopted Columbus as a founding father, although he never saw the shores of that country. The Genoese navigator's achievements are even less relevant to the coasts of Canada, which were very remote from the warm seas that Columbus sailed, and were known to Europe long before the explorations of the late fifteenth century.

The small European fleets which explored and eventually circled the world in the generation between Columbus and Magellan, were the culmination of 2,000 years of maritime history in the Mediterranean basin. The Phoenicians of the Levant coast built a maritime trade empire which spanned the Mediterranean, and were the first Mediterranean peoples to venture far outside that sea. A Phoenician expedition commissioned by an Egyptian pharaoh circumnavigated Africa about 600 B.C., and a few centuries later Phoenician traders were plying the Atlantic coasts from Cape Verde in western Africa to Brittany and perhaps to England. The Romans used Phoenician technology to extend maritime trade routes across the Arabian Sea to India, and to discover the Canary Islands off the western coast of Africa.

The westward spread of Islam and the consequent crusades undertaken by mediaeval Europe, brought major advances in maritime technology and skills. The crusades encouraged the construction of large and efficient freighters capable of transporting armies to the Holy Land, stimulated trade for Asiatic products, and led to the adoption of Arabic marine technology and navigational skills. The Italian cities which profited most from the Crusades produced many of the finest navigators of the Age of Exploration. The voyages of Columbus, Cabot, Verrazano and men like them, grew out of an ancient Mediterranean tradition, a search for trade and profit which had continued since classical times.

But Mediterranean peoples were not the first Europeans to cross the Atlantic and to encounter a New World in the West. In fact, the first ventures into the far reaches of the Western Ocean emanated from the few areas of Europe which had escaped Roman occupation. The ships and maritime skills of these regions owed little to the technology or learning of the Mediterranean, and the impulse which first tempted these northern Europeans across the North Atlantic grew out of an entirely different set of motives than those which drove Mediterranean traders.

For thousands of years the peoples of northern and western Europe had watched the ocean swells which endlessly rolled in from the West. Each summer the sea produced shoals of herring and runs of salmon which arrived from some far-distant location. At certain seasons, coastal watchers could see schools of whales following hidden paths to mysterious destinations. The tides brought driftwood from trees unknown in Europe, and occasional bits of man-made wrack which showed the workmanship of alien peoples. Some groups could see offshore islands in the far distance, a distant loom of land, and others caught occasional glimpses of islands which seemed to appear and disappear at will. In an age when there was no distinction between folklore and geographical knowledge, the hints of distant wonders must have tempted the imaginations of coastal European peoples.

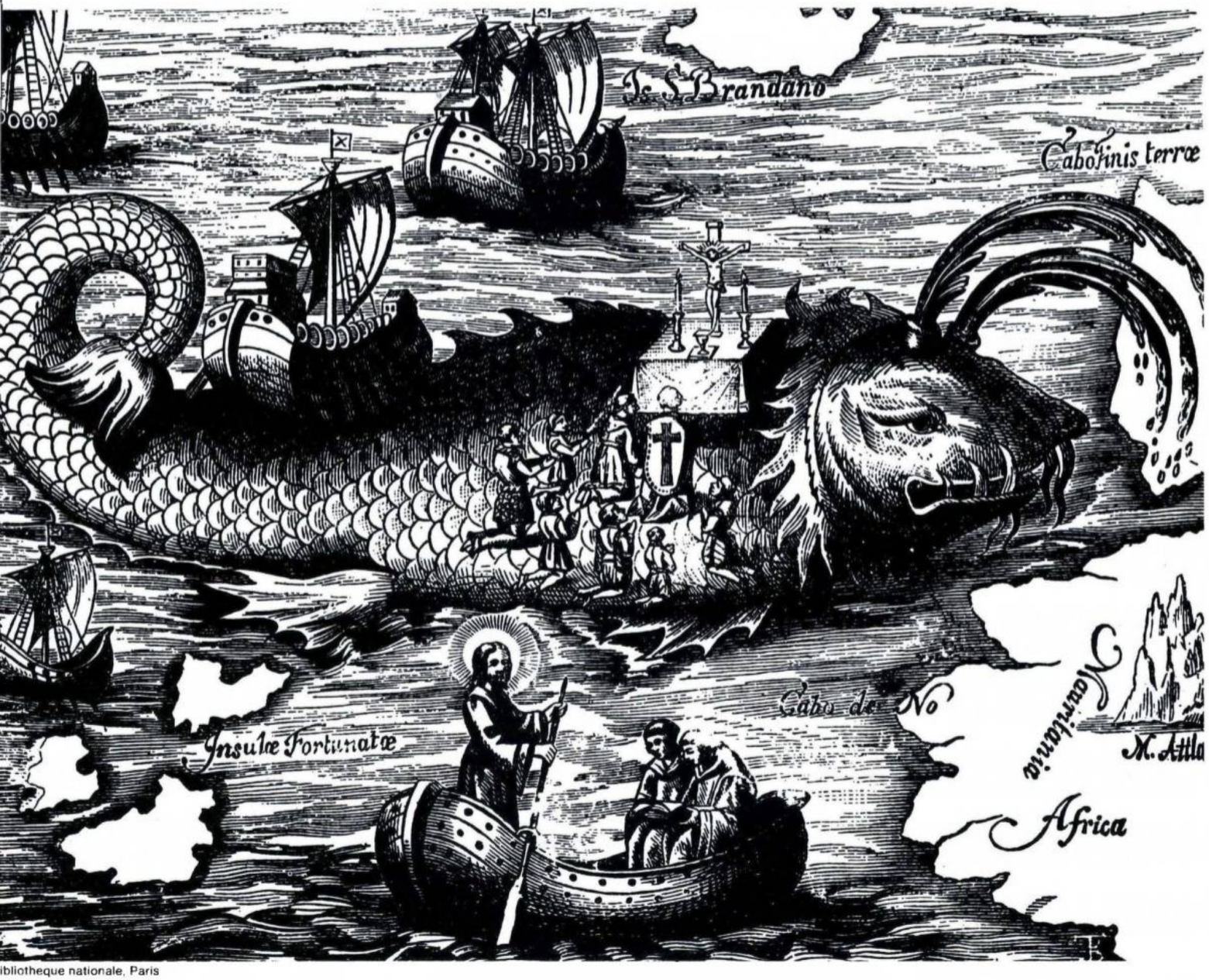
Although the evidence is meagre, it suggests that northern European sailors built and used sea-going ships at least as early as did Mediterranean peoples. Boats or small ships with high curved stems and sterns are common in Scandinavian rock art dating from earlier than 1000 B.C., and a thousand years later Julius Caesar described large vessels used by the Celtic tribes of northwestern Europe. These boats must have been used primarily for inshore fishing and coastal travel, but were obviously capable of maintaining trade and other connections between Europe and the island kingdoms of Britain and Ireland. A few centuries later, such vessels began to carry Irish explorers on voyages across wide stretches of ocean. The Irish inhabited the most distant and most oceanic portion of Europe, and it should not be surprising that Irishmen pioneered the routes leading to the far reaches of the North Atlantic and eventually to the New World.

The whale Jasconius permits St. Brendan and his companions to say Mass on his back during one of the intrepid saint's wonderful voyages. This woodcut was published in 1621.

APPROACHES

Before Columbus: Early European Visitors To the Shores of the 'New World'

By Robert McGhee



ibliotheque nationale, Paris

Photo By P. Sutherland

Throughout the Dark Ages Irish monks sought unoccupied islands where they could dwell in solitude and contemplation. In treeless lands they built domed stone huts, some of which still survive on the West Coast of Ireland and on islands offshore.

The impetus which spurred early Irish exploration was not the pursuit of trade nor the hope of military conquest, but the yearnings of religious faith. Ireland was Christianized in the fifth century A.D. and soon became a centre of Christian culture, a beacon of learning on the edge of Dark Age Europe. Irish Christianity was a monastic religion, and Irish monks sought isolation on deserted islands, where they could contemplate God and his works in solitude. Three such monks were brought to the English court of Alfred the Great, having sailed from Ireland in a small boat without oars and with food for only a week, depending on God to carry them to a destination where they could best serve him. Many such voyages must have taken place over the centuries, and some of them resulted in the discovery and eventually the occupation of distant islands. These voyages were made in small vessels called *curraghs*, built by sewing a tough skin of ox-hides over a light canoe-like frame of wooden splints, and driven by oars and a square-sail of woolen cloth. Canvas-covered curraghs are still used as fishing skiffs in western Ireland, and are very seaworthy in heavy weather. Their ability to undertake deep-sea voyages was proven in the 1970s when the adventurer Timothy Severin crossed the Atlantic, from Ireland to Newfoundland, in a replica of an ancient curragh named *Brendan*.

Severin's ship was named for St. Brendan, the most celebrated of the early Irish explorers, founder of several monasteries and a mighty traveller in the business of the Church. St. Brendan lived during the sixth century, and became the subject of a folk-narrative which was written down in the ninth century as the *Navigatio Sancti Brendani*, "The Voyage of St. Brendan the Navigator". According to this story, the aged saint decided to make a last journey in order to discover the Land of Promise of the Saints, a fabulous island which was said to lie in the far western ocean. St. Brendan and his company of 17 monks sailed the Atlantic for seven years and discovered many marvels: an island of giant sheep, another where the birds sang the holy offices in Latin, Judas Iscariot confined to a small rock in the sea, and a talking whale which allowed the monks to land on his back to say Mass.

Among these wonders, however, there are hints which suggest that Irish monks had a considerable knowledge of the North Atlantic. The descriptions of islands populated by wild sheep and massive flocks of seabirds are reminiscent of the Shetlands or even the Faeroe Islands far to the north of Scotland. Other descriptions suggest even more distant locations. At one point in the voyage they came to an island with sheer cliffs as

black as coal, and a mountain wreathed in the smoke which belched from its peak:

> A fair wind carried them away southwards, and when they looked back from afar they saw the mountain, clear of clouds, vomiting forth flames sky-high and then sucking them back upon itself, so that the whole mass of rock, right down to sea level, glowed like a pyre.

This account must describe a volcanic island, and its North Atlantic location suggests knowledge of Iceland. Another description hints at experience with a phenomenon of waters even farther to the west:

> One day after they had celebrated Mass, there appeared to them a column in the sea which did not seem to be far away, and yet it took them three days to get near it. When St. Brendan had come near, he looked for the top, but could see very little because it was so high. It was higher than the sky. Moreover, it was surrounded by an open-meshed net, with openings so large that the boat was able to pass through. They did not know what the net was made of. It was silver in colour but it seemed to be harder than marble. The column itself was of clearest crystal.

This passage clearly suggests an encounter with an iceberg, surrounded by its necklace of bergy-bits broken from the main berg. Almost all North Atlantic icebergs calve from the glaciers of Greenland and Arctic Canada, and drift southwards with the Labrador Current to their death in the warm waters of the Gulf Stream. They are most common off the coasts of Labrador and Newfoundland, and they very rarely float eastwards of the mid-Atlantic.

The story of St. Brendan's wondrous voyage is clearly a Christianized version of an *imram*, a form of Irish travel tale in which marvels were more important than truth. Yet it contains hints that the monks who established monastic communities on isolated islands around the British Isles knew something of more distant lands. The Land of Promise of the Saints, which St. Brendan eventually reached and found to be a land of perpetual daylight, delicious fruit and paths strewn with precious stones, cannot be easily identified with North America. Yet the Irish had the ships and the skills required to reach the eastern coasts of Canada, and we cannot totally dismiss suggestions that they may have penetrated the northwestern Atlantic. It has even been suggested that the description of the mighty fog which hid and protected the Land of Promise might reflect an acquaintance with the Grand Banks off Newfoundland.

By the early ninth century, when the *Navigatio Sancti Brendani* was recorded in writing, we have other evidence indicating that the Irish had settled islands as distant as Iceland. In A.D. 825 a learned monk named Dicuil, living at the court of Charlemagne, wrote a geographical treatise in which he described the islands of the North Atlantic. He reported that monks had lived for the past thirty years on an island six days'

Canvas-covered curraghs such as this fishing boat on Ireland's Dingle Peninsula are the descendants of the skin-covered craft which first carried Irish explorers to the Faeroe Islands, Iceland and, perhaps, beyond.

Photo by P. Sutherland

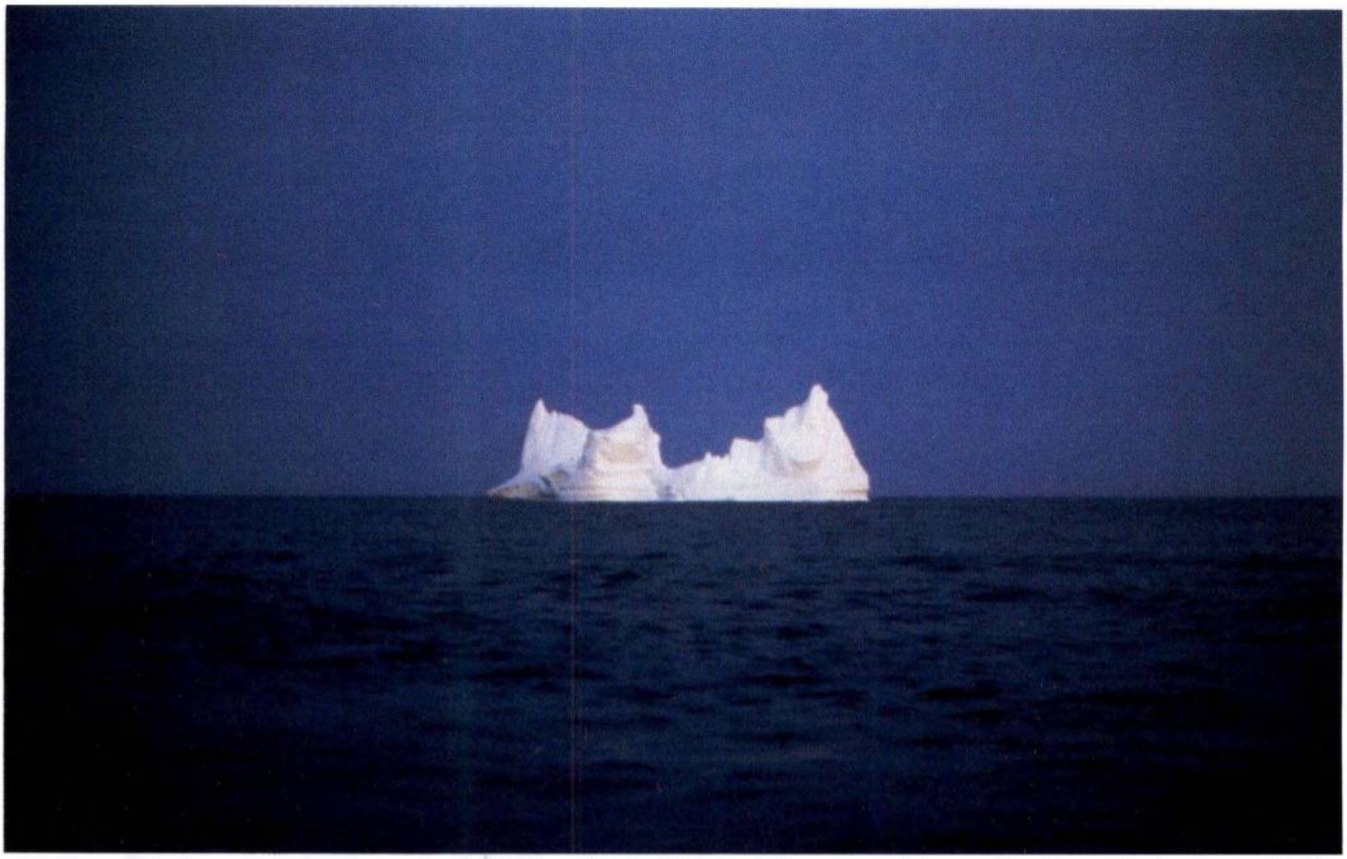


Photo by Robert McGhee

Was the crystal column rising from the sea, described in the early tale of St. Brendan's voyage, an iceberg such as this one floating southward off the coast of Newfoundland?

sail north of Britain and only one day's sail to the south of the frozen sea. At the time of the summer solstice, the inhabitants of this island experienced the phenomenon of the midnight sun:

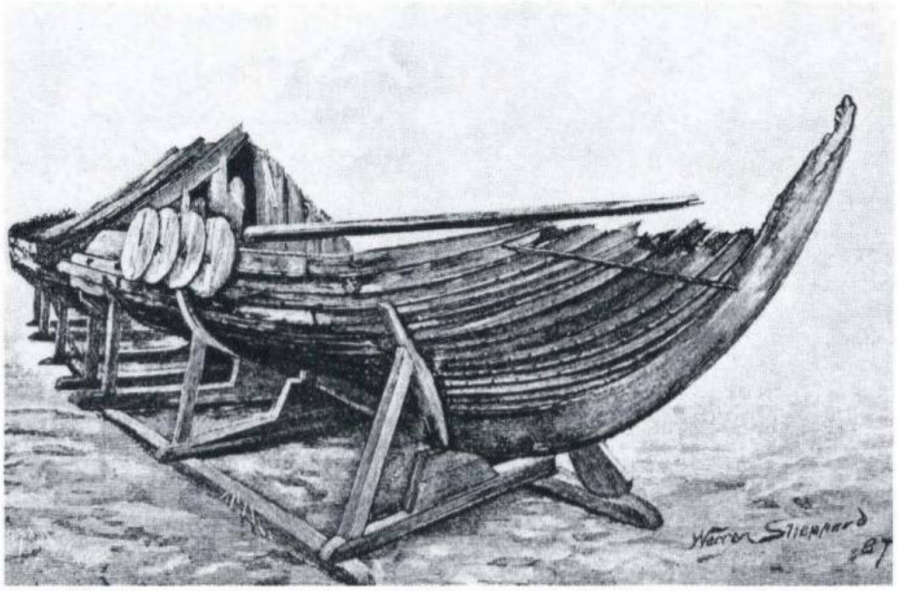
> . . . the setting sun hides itself at the evening hour as if behind a small hill, so that no darkness occurs during that brief period of time, but whatever task a man wishes to perform, even to picking the lice out of his shirt, he can manage it precisely as in broad daylight.

This is a perfect description of summer nights in Iceland, which lies just to the south of the Arctic Circle.

Fifty years later, when the first Norse explorers arrived on the coasts of Iceland, they found the land inhabited by people whom they called "papar". The mediaeval Icelandic Book of Settlements, (*Landnamabok*) reports that "These were Christians, and people consider that they must have been from the British Isles, because there were found left behind them Irish books, bells, and croziers, and other things besides, from which it might be deduced that they were Irishmen." The monks were soon driven from Iceland by the heathen Norse, as their compatriots had been driven from other island sanctuaries in the Hebrides, Orkneys, Shetlands and Faeroe Islands.

The coming of the Norse brought an end to Irish explorations of the far Atlantic. No archaeological evidence has yet been found to support claims that the mediaeval Irish reached the New World. Yet the Norse who explored the eastern coasts of Canada about 1,000 years ago suspected that, as on Iceland and other islands, they had been preceded by Irishmen. They told vague and rather implausible stories of a land named *Hvitramannaland* (White Man's Land) or *Greater Ireland*, which they placed in the general vicinity of Labrador. Perhaps these tales refer to a few refugee monks who, fleeing westwards from the Norse invaders of Iceland, found a new coast on which to live out lives of quiet prayer. If such men were the first Europeans to live in Canada, they would have left few remains for archaeologists to find, and fewer traces of their existence in the historical records of Europe.

The impulse which drove Norse exploration across the North Atlantic was much different than that which had tempted Irish monks to seek new islands beyond the edge of the known world. The Norse ventures in the west were a byproduct of the Viking Age, the last great outbreak of heathen barbarian peoples across Europe. The beginning of this outbreak is traditionally dated from A.D. 793, the year which saw the sacking of the monastery of Lindisfarne on the east coast of England. During the following century, much of Europe



Right: Viking boat unearthed at Gokstad, Southern Norway, in the 1880s, from "Scribner's Magazine", 1887. Left: This mysterious carving seems to represent a European man. Inuit work, it was found in a thirteenth-century Inuit village on Baffin Island. *(See page 17).*

was subject to sudden Viking raids, and even to occupation by Norse armies.

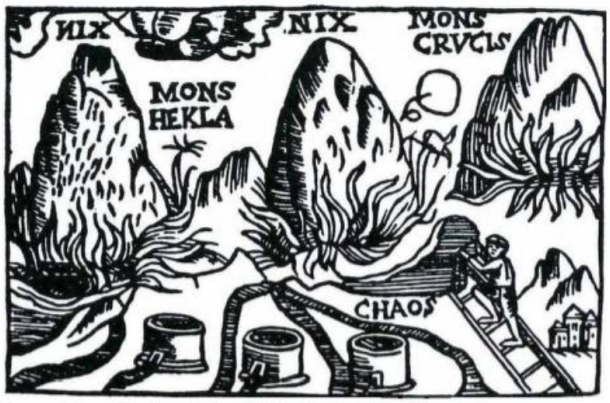
By the late ninth century, however, the Viking expansion had begun to slow. The easiest targets for coastal raids had long since been destroyed, fortified or occupied by erstwhile invaders. Armies of occupation had begun to establish themselves as settlers in their new homes, and fresh Norse armies had begun to suffer military setbacks in a newly-militarized European continent. King Harald Fairhair was attempting to unify Norway for the first time, and the power of his monarchy could be extended only through the suppression of local warlords. The hunger for new agricultural lands, always fierce along the rocky coasts of Norway, was now increased by men who had had their lands confiscated as opponents of King Harald.

Vikings at Lindisfarne monastery, from a stone carving.

Arable land could no longer be easily obtained by emigrating to England, Ireland, Normandy or other temperate regions of Europe. Consequently, land-poor Norse farmers began to turn their minds to the islands of the North Atlantic, unoccupied save for a few celibate and contemplative Irish monks who could be easily dispossessed.

The locations of these islands must have been known to the Norse, who had occupied the coastal regions of Ireland and who must have learned of Irish geographical discoveries. The Shetlands, on the direct sailing route from Norway to Scotland, had established Norse settlements. The Faeroes, almost midway between Scotland and Iceland, had been occupied by Irish monks for at least a century before the Norse arrived around A.D. 800. The first recorded Norse voyages to Iceland occurred about 60 years later, and the reports of a large island with good pasture lands set off an avalanche of emigration. By the end of the "settlement period" of Icelandic history — between A.D. 870 and 930 — 30,000 people had occupied all of the arable land in the country. This desperate search for farmland was clearly a much more compelling motive for exploration than the search for solitude which had brought the Irish to Iceland. It was a motive which would continue to impell the Norse westward until they encountered a force stronger than their appetite for land.

Norse sailors had little navigation equipment, steering by the wind and sea and measuring their position by the altitude of the sun and Pole star observed with crude wooden instruments. The small Norse ships were seaworthy, but could survive intense storms only by running before the wind, sometimes for days at a time.



Fire and ice of Iceland, fancifully depicted in Olaus Magnus, "Historia de gentibus septentrionalubus", published in Rome, 1555.

With many ships each summer plying the seas between Norway, Ireland and Iceland, it was inevitable that some would be driven past Iceland and that new land would be discovered. One such accidental discovery was made about A.D. 930 by a storm-driven sailor named Gunnbjorn Ulf-Krakason. The islands which he reported, a few days' sail west of Iceland, became known as Gunnbjorn's Skerries and are generally thought to have lain along the eastern coast of Greenland.

Gunnbjorn's report of land to the west was remembered 50 years later, when Eirik the Red committed murder and was outlawed from Iceland for a period of three years. Eirik had a history of trouble-making, and he could not spend his period of outlawry in Norway, where he was also under sentence of banishment. With few choices open to him, he decided to explore Gunnbjorn's Skerries, and inadvertently discovered a new country for Norse occupation. With a good wind, the east coast of Greenland lay only two or three days' sailing from Iceland; the high dome of the Inland Ice and its jagged margin of mountain peaks appeared long before one reached the coast, and not long after a sailor lost sight of the snow-covered top of Snaefellsjokull in western Iceland. Even in the relatively warm climatic conditions of the Mediaeval Warm Period, however, eastern Greenland with its sheer and barren coast protected by a grinding armour of pack ice, must have been a forbidding sight. It was certainly not a land fit for settlement by Norse farmers, nor even for outlaws wishing to pass a period of banishment.

Following the current which flows swiftly down this coast, Eirik's ship would have been carried southwards and then westwards around Cape Farewell at the southern tip of Greenland. Here the explorers must have been delighted to find an ice-free coast which teemed with fish, sea mammals and waterfowl. Although the outer coast was harsh, it was broken by innumerable fiords which penetrated deep into a country of broad valleys carpeted with grass and wildflowers, with forests of birch trees in sheltered areas, and huge herds of caribou. Best of all, the country was unoccupied; although Eirik's crew found the remains of boats and stone tools which told of earlier human occupation, they met neither Norseman, Irish monk nor aboriginal occupant. This was a new immigration-land, as Iceland had been a century before. Eirik named it Greenland, partly because a good name would be attractive to settlers, but also because the name is an apt description of the fertile fiord country of the south-western coast.

Eirik picked the site of his future home before returning to Iceland at the end of his three years' banishment, and we can assume that many of his crew marked land for themselves as well. Iceland was already overpopulated and had recently undergone a disastrous famine, so Eirik's report of free land in a new and fruitful country was welcomed. The summer after his return (A.D. 986 is the traditional date), 25 ships set out for Greenland and 14 of these arrived with perhaps 400 colonists. This population soon grew to something over 3,000 people occupying about 300 farms and supporting 16 churches, a cathedral, a monastery, and a convent. For the following five centuries, Greenland was a small European country on the fringes of the New World.

The existence of a continent to the west of Greenland could not long remain hidden, and according to the Icelandic saga accounts, it was discovered by accident in the same summer that the colonization fleet left to settle Eirik's new land. The discoverer was Bjarni Herjolfsson, an Icelandic trader who arrived home from Norway to find that his father had sold the family farm and followed Eirik to Greenland. With the vaguest of sailing directions he set out in the wake of Eirik's fleet, but was storm-driven far to the south and west. When storm and fog lifted he sighted a forested coast which could not be Eirik's Greenland. Without landing, Bjarni steered his ship northward until he came to mountainous and barren country, and then turned offshore and sailed directly to the west coast of Greenland.

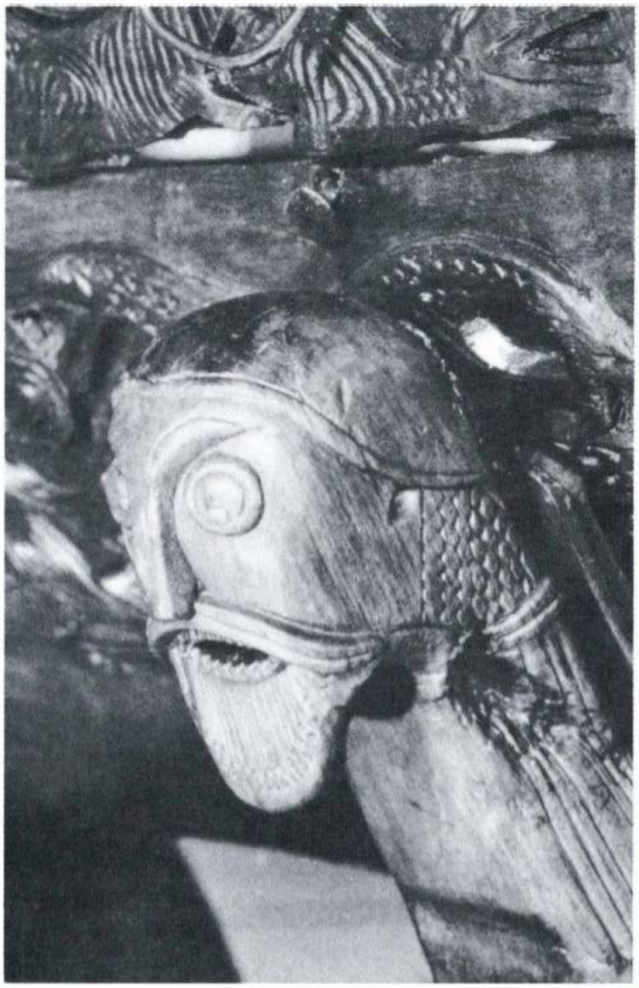
Bjarni was derided for not having landed in the new country, and indeed it is strange that a Norse skipper was so incurious regarding a landfall. Perhaps the sagas neglect to mention an important part of the story: that Bjarni saw signs of human occupation on the forested coast to the southwest of Greenland, and prudently decided not to risk an encounter between his small and storm-tired crew and an unknown population of strangers. The knowledge that this new land was occupied may also explain the fact that some fifteen years passed before the Greenlanders made any attempt to investigate Bjarni's discovery. During that period, other ships plying the route between Iceland and the new

Greenlandic colonies must have been blown far enough west to see at least the mountain-tops of Labrador, but no mention of such sightings are recorded.

The Icelandic sagas, which are our primary source of information on the early voyages to North America, give the next episodes to the family of Eirik the Red. About A.D. 1000 Eirik's son Leif is reported to have bought Bjarni's ship, and set out to follow Bjarni's voyage in reverse. Leif probably waited for an offshore wind before setting sail, and if that wind held for two or three days it would have brought him to the barren mountainous coast of northern Labrador or southern Baffin Island. Leif named this country *Helluland* (Flat Stone Land) and considered it unfit for habitation. Sailing southwards, the explorers next encountered a low-lying forested country which Leif named *Markland* (Forest Land), a name which aptly describes the central coast of Labrador. Continuing to the south, Leif and his crew came to a land of self-sown wheat and wild grapes, which they named *Vinland* (Wine Land) and where they built temporary shelters to see them through the winter.

The location of Vinland has puzzled scholars for centuries. The geographical hints given in the sagas are simply too vague and contradictory to provide a certain solution to the problem, and these hints have been interpreted as supporting locations ranging from Labrador to Florida and westward into the Great Lakes. The sailing directions would seem to place Vinland somewhere in the vicinity of Newfoundland, but wild grapes do not grow in Newfoundland. Some have suggested that Leif may have lied about the grapes in order to make his new land sound more attractive; or that he mistook the large and sweet blueberries of Newfoundland for grapes; or that the word "vin" referred to pasture rather than wine. Or perhaps Leif did sail far enough south to have seen wild grapes, which during the Mediaeval Warm Period grew as far north as New Brunswick. We can probably be no more precise than to suggest that Vinland probably lay somewhere in the Newfoundland-Gulf of St. Lawrence area.

This suggestion is supported by the only archaeological evidence of Norse occupation yet found in North America. In 1960 the Norwegian writer and adventurer Helge Ingstad was shown the ruins of several turf-walled structures, near the fishing village of L'Anse aux Meadows on the northern tip of Newfoundland. Twenty years of excavation, first under the direction of Ingstad's wife Anne Stine and then by the Canadian Parks Service, revealed the remains of a small European community which was briefly occupied at about the time of the Vinland voyages. It is impossible to identify L'Anse aux Meadows with the site of Leif's houses, or with other Vinland settlements mentioned in the sagas. Yet the settlements described in the sagas would have left archaeological remains much like those at L'Anse aux Meadows, and the location of the site provides the best evidence to date on the location of Vinland.



A Norwegian Viking depicted in wood from the Oseberg wagon, ninth century.

Returning to the saga accounts we find that Leif's crew wintered in Vinland and returned to Greenland the following summer with a cargo of timber and vines. His reports of a more temperate land led to four further expeditions in the following years. The first was led by Leif's brother Thorvald, who used the houses built by Leif as a base for exploration of the surrounding coasts. During one such exploration on the Markland coast, they encountered a party of natives, most of whom they killed. Thorvald was slain by an arrow in a reprisal raid, and his crew returned to Greenland the following summer. Thorstein Eiriksson organized an expedition to recover his brother's body, but was prevented by stormy weather from reaching either Markland or Vinland.

The explorations of the Eiriksson brothers set the stage for the most ambitious expedition to Vinland. Led by an Icelandic merchant named Thorfinn Karlsefni, and comprising several ships carrying entire

Bering Sea
Hudson Bay
VINLAND ?
St. Lawrence R.
C. Cod
L'Anse aux Meadows
Gulf of St. Lawrence
MARKLAND ?
HELLULAND ?
Arctic Ocean
C. Race
NEWFOUNDLAND
Str. of Belle Isle
Davis Strait
Baffin Bay
Julianehaab
Herjolfsnes
Godthaab
Sukkertoppen
GREENLAND
Denmark Strait
ICELAND
Arctic Circle
SPITSBERGEN
NOVAYA ZEMLYA
IRELAND
The Faroes
Hebrides
Dublin
Shetland Is.
Orkney Is.
SCOTLAND
ENGLAND
NORWAY
SWEDEN
Trondhjem
FINLAND
SPAIN
FRANCE
GERMANY

Photo by Robert McGhee

Low turf walls mark the remains of the Norse settlement at L'Anse aux Meadows on the northern tip of Newfoundland's Great Northern Peninsula.

families with their livestock, this was a full-blown attempt to establish an agricultural settlement in the newly discovered lands. During their three years in Vinland, Karlsefni's party explored the country and apparently found little trouble in supporting themselves. A boy named Snorri was born to Karlsefni's wife Gudrid, and was perhaps the first European child born in the New World.

Most importantly, however, the Norse immigrants met and traded for furs with natives whom they called *Skraelings*. Archaeological evidence indicates that the regions which were most probably reached by the Norse were occupied at the time by Indian peoples, the direct ancestors of the Beothuk of Newfoundland and the Innu of Labrador. The first meetings with these local inhabitants were guardedly peaceful, but eventually their relations with the natives turned hostile and there were skirmishes involving several deaths. Although the sagas report that the Norse won these battles, they also suggest that the hostility of the native population was the reason that the Norse abandoned their attempted colony and sailed home for Greenland. In leaving Vinland, the sagas report Karlsefni as recognizing that "there would always be fear and strife dogging them there on account of those who already inhabited it." A final Vinland expedition, led by Eirik's daughter Freydis in consort with two Icelandic brothers, ended in feuding and murder during the first winter. Freydis is said to have ordered the slaughter of the brothers and 30 of their followers, both men and women.

There are no further mentions of Vinland voyages in the Icelandic sagas; after the first decade of the eleventh century, the Norse seem to have realized that they would not be able to colonize the already-occupied lands to the west of Greenland. Their weapons were no more effective than those of the American Indians, and the small Norse ships could never carry enough warriors to overcome the hunters of even a small Indian village. Most importantly, the small populations and harsh conditions of Iceland and Greenland served as disease-filters, so that the Norse did not bring to the New World the diseases which opened the way for European colonization of the hemisphere five centuries later.

Although there were no more attempts to colonize Vinland, Norse contact with the New World did not stop. In Greenland, the Norse had established a farming economy which was relatively self-sufficient and stable enough to survive for almost five centuries, but some of their needs could not be met by Greenlandic products. Foremost among these needs was timber for boatbuilding, construction, and other purposes. The forested coast of Labrador, the Norse Markland, lay

Photo by Robert McGhee

Lush summer pastures such as this one on Newfoundland's coast must have been very attractive to land-hungry Norse explorers.

only two or three days' sail from southwestern Greenland. Labrador must have been visited at least sporadically for cargoes of spruce timber, quickly felled and loaded while a wary eye was kept for Skraeling attack. Such voyages are not mentioned in the sagas, but did leave occasional bits of evidence. One such hint is in the form of a small coin excavated from an Indian archaeological site in Maine, and recognized as a Norse penny dating from the reign of King Olaf Kyrre between A.D. 1065 and 1080.

The "Maine penny" was minted more than a half-century after the last of the Vinland voyages described in saga accounts, and is good evidence of later Norse contact with North America. The area of the Norse landing is suggested by the fact that some of the stone tools used by the Indians, who occupied the site where the coin was found, were of a specific type of chert which occurs only in the Ramah Bay area of northern Labrador. The coin may well have been traded south, with a consignment of stone, from the northern Labrador forests where it had been obtained either in trade or in a skirmish between Norse visitors and natives guarding their lands against invaders.

Three hundred years later, an Icelandic chronicle for the year A.D. 1347 noted that a small Greenlandic ship had been storm-driven to Iceland while returning from Markland. The casual tone of this report, and the fact that the name Markland did not require an explanation, suggests that continued contact with this forestland in the west was general knowledge in the Iceland of the time.

Further evidence of continued contact with the New World comes from archaeological finds in Arctic Canada. While the Norse were settling Greenland, the ancestors of the Inuit were expanding eastward from Alaska. In the relatively warm climatic conditions of the Mediaeval Warm Period, they brought with them a sophisticated maritime hunting culture based on hunting large bowhead whales. They displaced an earlier arctic population, known to archaeologists as Paleo-Eskimos and probably known to the Norse as a distinctive Skraeling nation which occupied the barren coasts of Helluland. The Inuit eventually crossed from Ellesmere Island to Greenland, where they gradually pushed southward to the area already occupied by the Norse. It was inevitable that the two groups of immigrants would meet, but there are surprisingly few reports of Inuit in the Norse historical accounts.

The first mention of Inuit appears in A.D. 1266, with a report that a Norse hunting party in the north had encountered traces of Skraelings. Another account from the same period states that hunters had met a small people who had no iron but used stone knives and ivory weapons. Later reports of Inuit are rare, and

almost all are concerned with violent contacts between the two groups. This has led to assumptions, which archaeological evidence now seems to have discredited, that the eventual disappearance of the Norse Greenlandic colonies were caused by Inuit invasion.

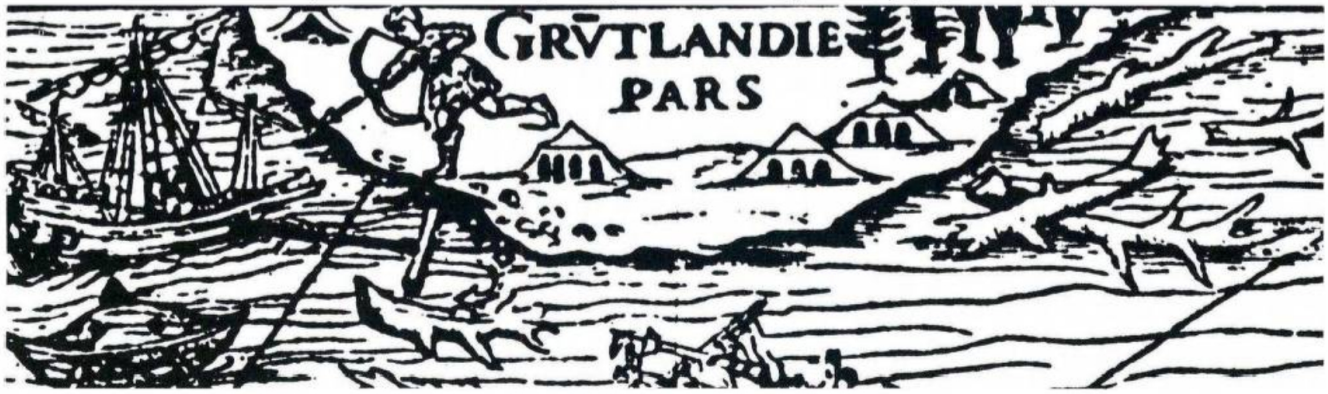
Archaeological work over the past decades indicates that contact between the Inuit and the Norse began earlier, and was much more extensive and complex than is suggested by the few mentions of sporadic and violent encounters which survive in the historical record. Norse materials have been found in several early Inuit villages in Arctic Canada, dating from the period before the Inuit occupied western Greenland. These finds hint at Norse visits to the eastern Canadian Arctic, and contacts with the native occupants of the area, over a considerable period of time. Such contacts would most likely have occurred along the coasts of Baffin Island and northern Labrador, the Norse Helluland, which Greenlandic ships must have coasted on their voyages to Vinland and on later timber-cutting expeditions to Markland.

Some meetings between the crews of Norse vessels and local Inuit groups may have been hostile, but it seems likely that others involved trade. Small pieces of smelted iron, bronze and copper are widely distributed through Canadian Inuit villages of the time, indicating that metal was a valuable trade commodity. The Vinland sagas report that the Norse had been willing to trade with the Skraelings of Vinland, and the Inuit of Helluland had materials which were very valuable to the Norse: walrus ivory, narwhal tusks, polar bear skins and other furs. These were the commodities which the Norse exported to Europe in return for metal goods, grain, wine, ecclesiastical garments, and other products of civilization. The Norse required a constant supply of ivory and furs, in order to maintain their contacts with Europe, and they undertook great efforts to obtain them. In such a commercial situation, trade with the Inuit would have been an attractive proposition. Interestingly, among the Norse artifacts which have been recovered from Canadian Arctic archaeological sites is a portion of a bronze balance, a characteristic tool of Norse traders. A small wooden carving, made by a Baffin Island Inuit artist during the thirteenth century, shows a figure dressed in a long European robe; is this a representation of a Norse trader who visited Hudson Strait two centuries before Columbus?

Through the Greenlanders' trade with Europe, information about Arctic Canada and its inhabitants reached Europe at a surprisingly early date. The first written description of the Inuit does not come from Norse historical record, but from an Arabic book of geography which was written a full century before the Greenlandic Norse mentioned their first meeting with Skraelings in the north. This account was composed about A.D. 1150 by the respected geographer al-Idrisi who lived at the court of Robert the Norman in Sicily. Idrisi noted that huge animals lived in the waters of the North Atlantic Ocean, and that on the innermost islands of the ocean lived a people who used the bones of these animals to build their houses, and for spears, clubs, benches, ladders, and all other tools. The animals must be whales, and the only people living around the North Atlantic who made major use of whale bones at that time were the Inuit of the eastern Arctic. Even the reference to ladders may be evidence that these people were Inuit: the Inuit did not use ladders, but they did use sleds of the komatik type with two long runners joined by a number of cross-slats; such sleds, stored leaning against the roofs of a winter village, could easily be mistaken by a passing European for ladders. The twelfth-century Arabic description of Inuit supports the archaeological evidence for early contact between Inuit and Norse. It is also an early piece of evidence indicating that Europeans outside of Scandinavia were aware of a distant land beyond the western ocean.

The Norse colonies of Greenland were able to maintain their connection with Europe until around A.D.

A Greenland Eskimo fires his arrow at a European ship in this illustration from a map of Scandinavia published in 1539.



Clothing similar to that worn by fourteenth-century Europeans has been found in excavations in Greenland.

1400, although contacts had become increasingly sporadic over the preceding century. The last description of an apparently thriving European society dates from A.D. 1410, when the crew of a storm-driven Icelandic ship returned after a four-year stay in Greenland. After that date, European history records nothing of the fate of their most westerly outpost. The end of the Norse colonies remains a mystery. Their disappearance can no longer be easily explained by an Inuit invasion, since archaeology shows that the Inuit had arrived at least a century earlier, and the two peoples appear to have successfully shared southwestern Greenland for several generations. The deteriorating climatic conditions, which set in with the approach of the Little Ice Age, were probably of greater significance both for Norse agriculture and for sailing conditions between Greenland and Europe. A decrease in the value of Greenlandic products may also have been played an important part in the decline of the colonies. The Greenlandic Norse depended on contact with Europe to maintain their way of life, and by A.D. 1400 Europe was less interested in Greenland. As Hanseatic traders opened routes to Arctic Eurasia, and as the Portuguese began to push around the African coast, Europe was able to obtain ivory and furs from other sources. The Greenlandic colonies may have died from economic isolation, as much as from a colder climate.

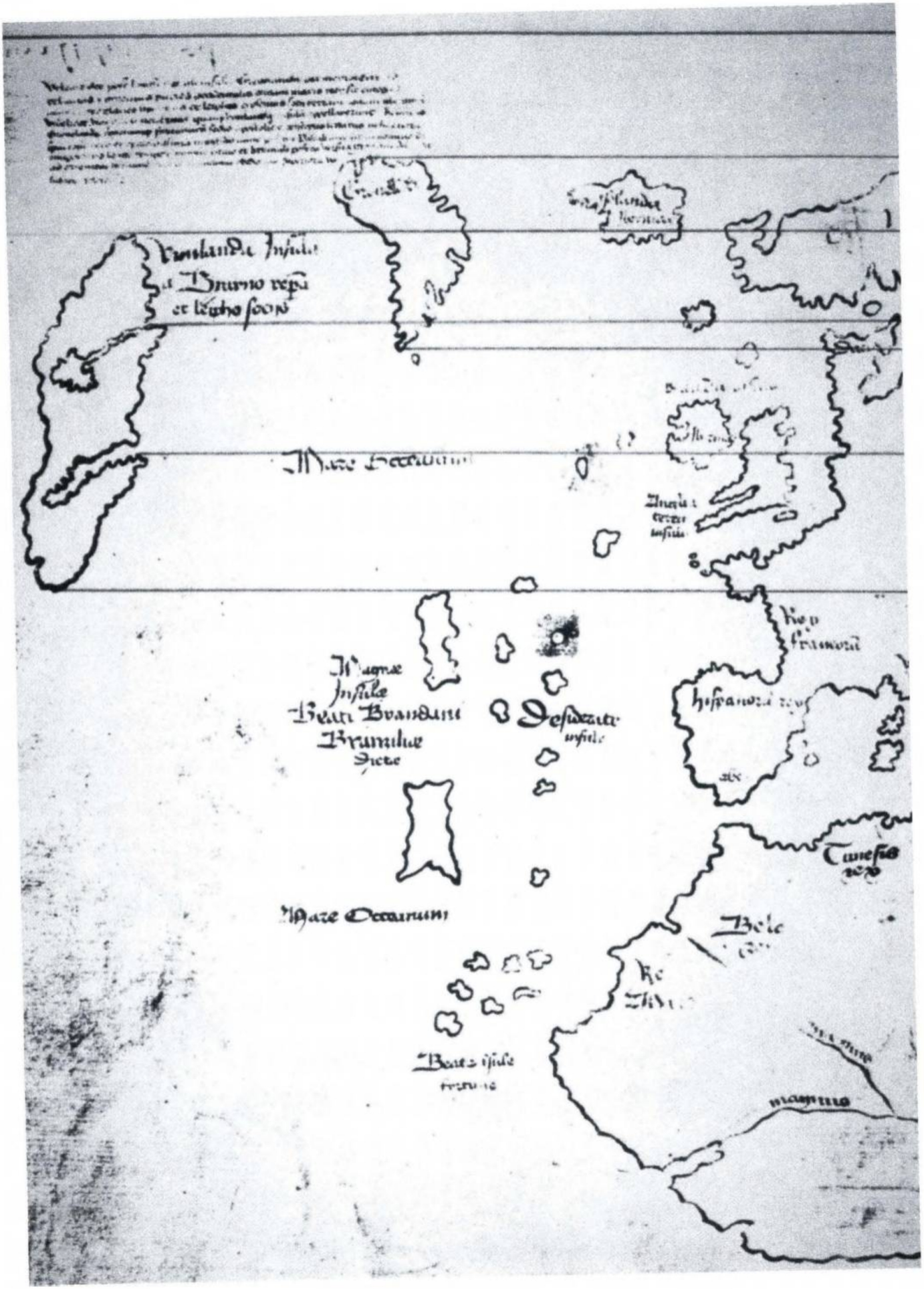
There are hints, however, that contacts with Europe continued through most of the fifteenth century. Archaeological excavations in the frozen cemetery at Herjolfsness, in extreme southwestern Greenland, recovered skeletons dressed in clothing of styles which were popular in Europe during the late 1400s. Several vague accounts refer to a Danish or German skipper named Didrik Pining and a companion named Pothorst, who were said to have established a beacon on a rock named *Hvitsark* to the west of Iceland in the 1470s. *Hvitsark* ("White Shirt") seems to be a traditional Icelandic name for a large glacier on the southwestern coast of Greenland. The tales may relate to one or more voyages made by Pining to Greenland, either to trade with the Norse colonists or to loot the farms of the dying colonies. Other accounts hint at fifteenth-century voyages to Greenland by Portuguese navigators, as well as by a sailor named Johannes Scolvus who has been claimed by Norway, England and Poland. Greenlandic Inuit history tells of the Norse farms being attacked and burned by raiders from the sea, a story which may supply a motive for these poorly recorded European voyages in the northwestern Atlantic. Pirates tend to leave as few historical records of their activities as possible, but their voyages may have served to maintain the European memory of Greenland and the adjacent countries of the far northwestern Atlantic.

Awareness of Greenland was not limited to pirates and traders; the Christian Church also showed sporadic interest in rescuing a lost community which had been without priests or bishops for many generations. There was even talk of a crusade to rescue the Greenlanders from apostasy, but it never set sail. The Church's interest may have been the motive for the production of a map which was discovered in the 1950s and which has come to be known as the "Vinland Map". This map is owned by the library of Yale University, and appears to have been drawn around A.D. 1440 in the upper Rhineland; the evidence points to an origin at the Council of Basel, a major Church assembly which was held from 1431 to 1449.

The Old World portion of this unusual map closely resembles other maps of the time, and the Atlantic Ocean contains several of the mythical islands which appear on most fifteenth-century charts. Prominent among these, however, is a large and relatively accurate representation of Greenland, and a larger island to the southwest of it labelled "Island of Vinland". The form of the eastern coast of "Vinland", and its position relative to the latitudes of Greenland and Europe, bears a strong resemblance to the east coasts of Baffin Island, Labrador and Newfoundland.

After an initial period of enthusiasm, the Vinland Map was dismissed as an obvious forgery. However, recent scientific examinations have shown that the earlier allegations of fraud were based on incorrect evidence. The physical evidence now supports the view that the Vinland Map is an authentic fifteenth-century document, and that it shows a clear representation of northeastern North America as it was known to Europe a half-century before Columbus's first voyage. (For a more complete discussion of this map, see "The Vinland Map: Hoax or History?", *The Beaver,* April/May 1987).

The Atlantic portion of the "Vinland Map" belonging to the Beinecke Library at Yale University and thought to have been drawn fifty years before Columbus's voyage. The horizontal lines have been added in order to compare the latitudes of "Vinland" with those of Greenland and Europe. The comparison suggests that the three portions of "Vinland" may represent the east coasts of Baffin Island, Labrador and Newfoundland.


Mare Occanum
Mare Occanum
Tunesia
Bele

The "Skalholt Map" was drawn in Iceland around 1590. It shows continued knowledge of the early Norse discoveries in the west, and locates Vinland on a feature that looks very much like Newfoundland's Great Northern Peninsula.

Although memories of the Norse lands in the west may have been retained in Scandinavia and among certain portions of the European clergy, were they common knowledge among the European seamen of the Age of Exploration? It seems likely that some vague information about western lands was circulating in the seaports of at least England and Portugal, and that this information led to several fifteenth-century voyages into the far Atlantic. The medium by which this information was spread, and the base from which exploration sprang, was an important fifteenth-century trade involving Iceland, England and Portugal.

English fishermen began fishing for cod in Icelandic waters shortly after A.D. 1400 and soon developed an important trade in Icelandic dried cod, which was a major protein resource in the Europe of the day. They also developed a reputation for piracy and raiding of isolated Icelandic communities, and there is a suspicion that they extended these activities as far as Greenland. The West of England port of Bristol became a trade centre and rendezvous for ships carrying dried fish from Iceland, and for Portuguese vessels laden with wine, dried fruit and other southern products. It is not surprising that Bristol, where visiting Portuguese captains could discuss business with skippers engaged in the Iceland trade, or even with the small resident community of Icelanders, became a centre for westward exploration.

For most of the fifteenth century, Portuguese navigators led Europe in the development of maritime skills and technology. They pioneered new routes southward around the coast of Africa, and westward in the search for Atlantic islands. The first major success in this exploration was the discovery of the Azores, a small and scattered group of islands lying in mid-Atlantic, 1,400 kilometres west of Portugal and only 1,900 kilometres southeast of Newfoundland. The first islands in the group were found in 1431 by a Portuguese explorer whom Prince Henry the Navigator had sent in search of the mythical Isle of St. Brendan. By 1452 the westernmost outliers of the group had been discovered, and the Portuguese had established settlements on the islands. The settlers soon began to report driftwood, dugout canoes and even the bodies of men who were "very broad in the face and of an appearance different from that of Christians", which were brought ashore by winds and currents from the west. Azorean Portuguese were among the leaders in explorations of the northwestern Atlantic, and the latter half of the fifteenth century produced a series of shadowy voyages and hinted discoveries associated with sailors from the Azores and from Bristol.

One such voyage occurred in 1452, and involved the navigators who had just discovered the final Azorean islands. Sailing to the north beyond the Azores, they were caught by a heavy westerly storm, but since the seas remained calm they considered that they were in the lee of land which they did not see; they eventually landed in Ireland. A similar story was told to Columbus by an ancient mariner who had been blown to a western land believed to be Tartary while on a voyage to Ireland; Columbus's early biographer, Bartolomé de las Casas, considered this to be a reference to Newfoundland. Between 1450 and 1500, several Portuguese and Azorean navigators were issued licenses and grants to discover and claim unknown islands,

This illustration from Olaus Magnus (1555) shows a Greenlander, left, fighting with a "Skraeling", a Norse word of contempt meaning "barbarian" or "pygmy". A saint looks on.

Estense Library, Modena

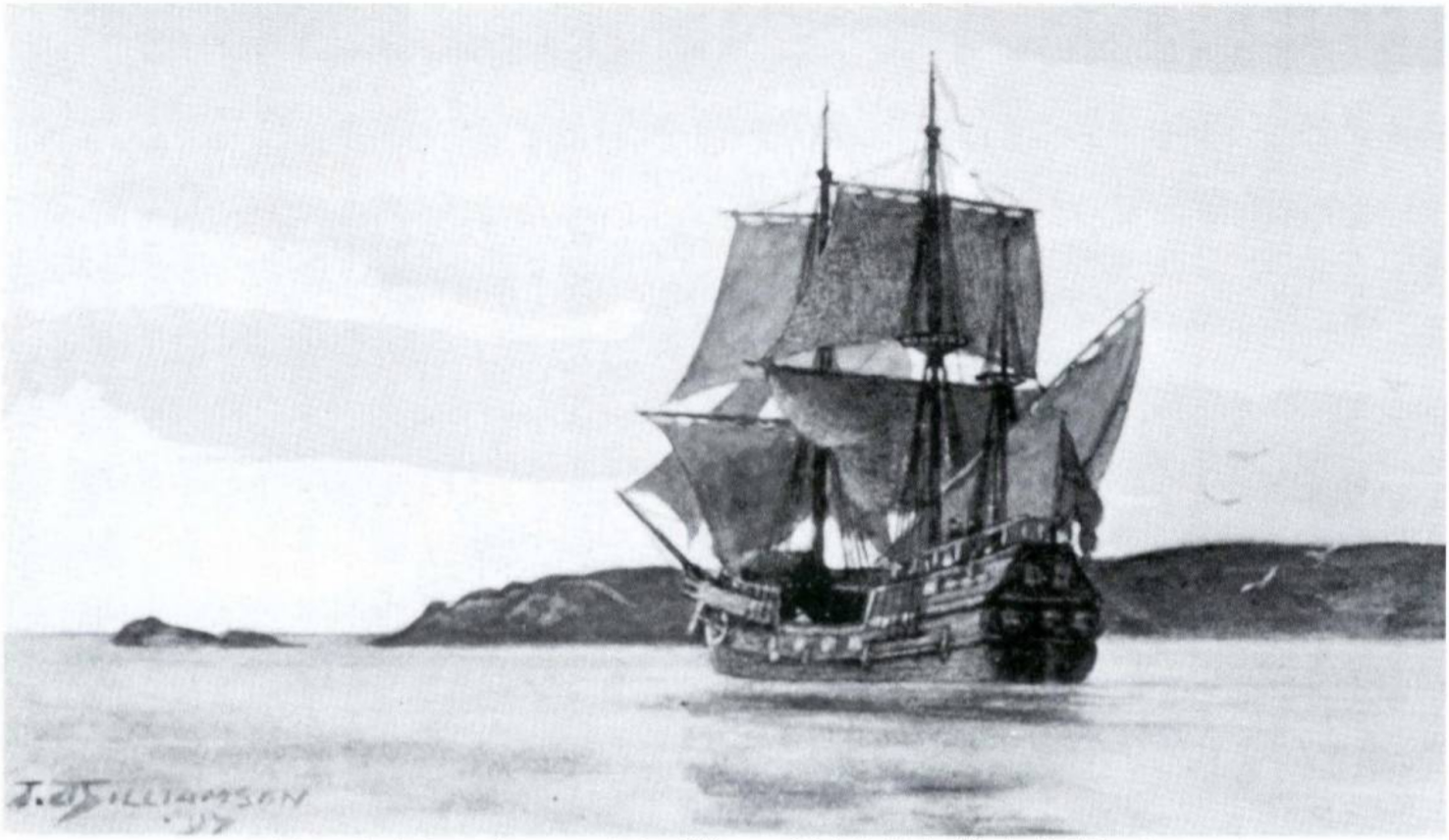
This 1502 map shows Newfoundland labelled "Terra del Rey de Portuguall" (Land of the King of Portugal). The Portuguese flags on the Azores, Newfoundland and Greenland mark the results of early Portuguese explorations into the northwestern Atlantic.

but there is no conclusive evidence that any such grants were taken up.

Similar activities were also taking place in England. About 1480 the English chronicler William of Worcester recorded directions to those who wished to sail to the "island of Brasyle", suggesting that they steer from the Blasket Islands off the west coast of Ireland. "Brasil" was one of the mythical islands which peppered the Atlantic on fifteenth-century maps, but it was unusual to find sailing directions to such an island. Most mariners of the time used instruments which gave them an approximate measure of latitude, and preferred to cross large bodies of water by "latitude sailing": coasting north or south to the latitude of the destination, and then striking east or west along a line of constant latitude. Sailing directly west from the Blasket Islands, at approximately 52° north latitude, a ship would strike the coast of the New World at the entrance to the Strait of Belle Isle, just to the north of the tip of Newfoundland and the ancient Norse settlement site at L'Anse aux Meadows.

Other English accounts of the time mention voyages in search of "Brasil". One such voyage set out from Bristol in 1480, but returned after a stormy and unsuccessful search. The following year two ships, the *George* and *Trinity* sailed for the same island; the *George* carried a cargo of salt, suggesting that the expedition's backers were interested in cod-fishing as well as discovery. No records have been found to indicate the success of the venture, nor whether the backers used their licence to send further voyages during the following years.

John Cabot's 1497 voyage from Bristol, and his reported discovery of the "Newe Found Islande", was organized in the context of these earlier expeditions. A Spanish diplomat, who wrote a 1498 report on Cabot's discovery, added that "For the past seven years the people of Bristol have equipped two, three or four caravels to go in search of the Island of Brasil . . ." Another report on Cabot's discovery was found in the Spanish archives in 1956, and is more explicit. This letter was written by a Bristol merchant named John Day, and was apparently addressed to Christopher Columbus: it stated that the land discovered by Cabot ". . . was found and discovered in times past by the men of Bristol who found Brasil as your Lordship knows. It was called the Isle of Brasil and it is assumed and believed to be the mainland that the Bristol men found." The John Day letter goes on to say that the cape discovered by Cabot is west of Dursey Head in



An impression by nineteenth-century artist Jan Williamson of Cabot's ship the "Matthew" off Cape Race.

Ireland; Dursey Head, a few kilometers south of the Blasket Islands, is at the same latitude as the northern tip of Newfoundland.

There is one piece of cartographic evidence which seems to confirm these vague reports of discoveries in the western Atlantic prior to the voyages of Cabot or Columbus. This is a Spanish map which was drawn about 1480, and which is generally known as the Milan Chart since it is owned by a library in that city. The map portrays the British Isles and Iceland in considerable detail, as well as the Azores and a few of the mythical islands of the day. Far to the northwest of the Azores, at the latitude of Ireland and forming a roughly equilateral triangle with Ireland and Iceland, lie two large islands forming a strange configuration resembling an exclamation point (!). The smaller round island is labelled *Illa de Brazil;* the larger rectangular island to the north of it is named *Illa Verde* (Green Island). Is "Green Island" a version of the name "Greenland", and does its use on this map indicate an attempt to identify a newly discovered land with an ancient name? Is the *Illa de Brazil* the same island found by John Cabot seventeen years later, and perhaps by other Bristol men before him? And does the position of this configuration, on the Milan Chart, indicate that Newfoundland had been rediscovered by Europe more than a decade before Columbus's first voyage?

These questions cannot be answered with any certainty, but they lead to others. For example, is it sheer coincidence that the various descriptions of the newly found land in the West, including that of John Cabot's discovery, converge on the northern tip of Newfoundland where the Norse attempted a settlement five centuries before? Was there, in fact, any significant break in European voyages to the Newfoundland-Labrador coast, between the logging and trading expeditions of the Greenlandic Norse and the fishing expeditions of the English and Portuguese?

Certainly there may have been periods of several decades when no European ship was seen off the coasts of North America, but were these coasts ever forgotten by the seamen of northern Europe? When John Cabot sailed to his Newe Found Islande in 1497, or the Azorean Joao Fernandez (nicknamed the Labrador) sailed to Greenland in 1500, or the Azorean brothers Corte-Real explored Newfoundland under the name *Terra Verde* (Green Land) in the same year, it seems likely that they knew something of their destinations and of the products which they would find there. By the late 1400s the newly-designed caravelles, which

had been developed by the Portuguese, were capable of extended ocean crossings. Europe was suddenly capable of exploiting the resources of the New World.

One of the most important of these resources was codfish, an extremely important commodity in a Europe where Christian duty required abstinence from meat for two or three days each week. The first of the continuing "cod wars" between Iceland and England had occurred in the 1480s, and resulted in the exclusion of English ships from Icelandic waters. The contemporaneous occurrence of English and Portuguese explorations in the western Atlantic may have been occasioned by the search for an alternative source of cod. It has been suggested that the various hints of voyages to a mysterious "Isle of Brasil" may reflect secretive fishing on the Grand Banks and in Newfoundland coastal waters, for one or two decades before the area was officially "discovered" under royal licence.

Once the official discovery had been made, however, and news of Newfoundland's marine riches began to spread through the royal courts and commercial capitals of Europe, a flood of fishing vessels headed for the area. The extent of the early cod and whale fishery in Newfoundland waters is staggering; one account reports 50 English ships, 100 Spanish, 50 Portuguese, and 150 French fishing vessels as well as 20 or 30 Basque whaling ships working Newfoundland waters in 1578.

Throughout the sixteenth century, European activities in the New World were centred in two localities. In the South, Columbus's explorations had led to the establishment of New Spain, and the well known plunder of the aboriginal civilizations of Mexico and Peru. In the North, centuries of sporadic European voyaging culminated in the plunder of the animal resources of the Newe Found Lande. Although the comparison is difficult to make, some historians have calculated that the codfish and whale oil exported from Newfoundland in the sixteenth century was of greater value than the precious metals brought to Europe by the treasure fleets from New Spain.

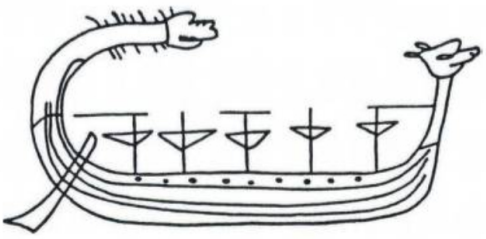
This year marks the 500th anniversary of Christopher Columbus's first venture across the South Atlantic. Throughout the world, the anniversary of the Columbus voyage and the subsequent conquest of New Spain are being celebrated, or reviled, as important events in human history. But history has largely forgotten the contemporaneous exploitation of the Newe Found Lande, and the 500 years of exploration which led to this event. The northern voyages may simply be too shadowy, vague and poorly understood to make good history. Yet our knowledge of the past can only be enriched by trying to understand the motives, the conditions, the technologies and skills which led to these first contacts between Europeans and a New World on the far side of the Atlantic. ♦

Robert McGhee is an archaeologist with the Canadian Museum of Civilization, and author of the book "Canada Rediscovered" recently published by the museum.

Skraelings

In the summer succeeding the first winter, Skrellings were discovered. A great troop of men came forth from out the woods. The cattle were hard by, and the bull began to bellow and roar with a great noise whereat the Skrellings were frightened and ran away, with their packs wherein were grey furs, sables, and all kinds of peltries. They fled towards Karlsefni's dwelling, and sought to effect an entrance into the house, but Karlsefni caused the doors to be defended [against them]. Neither [people] could understand the other's language. The Skrellings put down their bundles then, and loosed them, and offered their wares [for barter], and were especially anxious to exchange these for weapons, but Karlsefni forbade his men to sell their weapons, and taking counsel with himself, he had the women carry out milk to the Skrellings, which they no sooner saw, than they wanted to buy it, and nothing else. Now the outcome of the Skrellings' trading was, that they carried their wares away in their stomachs, while they left their packs and peltries behind with Karlsefni and his companions, and having accomplished this [exchange] they went away. Now it is to be told that Karlsefni caused a strong wooded palisade to be constructed and set up around the house. It was at this time that Gudrid, Karlsefni's wife, gave birth to a male child, and the boy was called Snorri.

— From the *Graenlendinga saga*, quoted by Tryggvi J. Oleson in *Early Voyages and Northern Approaches* (McClelland and Stewart Limited, 1963).



Can-Car Re-Tools for Victory

HURRICANE

By David D. Kemp

Over fifty years ago in January 1940, with World War II only 5 months old, a sleek monoplane fighter aircraft was rolled out at the Fort William works of the Canadian Car and Foundry Company Limited (CCF). This plane, a Hawker Hurricane, was the first of more than 1,400 such aircraft which were to leave the company's plant in the next three years as part of a much needed contribution to the Allied war effort.

Asked to name the products of an organization named "The Canadian Car and Foundry Company Ltd.", the man-in-the-street might include automobiles, railcars or metal castings in his answer, but (except in Thunder Bay, perhaps) would be unlikely to mention aircraft. This is not surprising, for the name itself gives no clue to any involvement in aviation, yet during the war, Can-Car, as it was more commonly known, became the largest aircraft company in Canada.

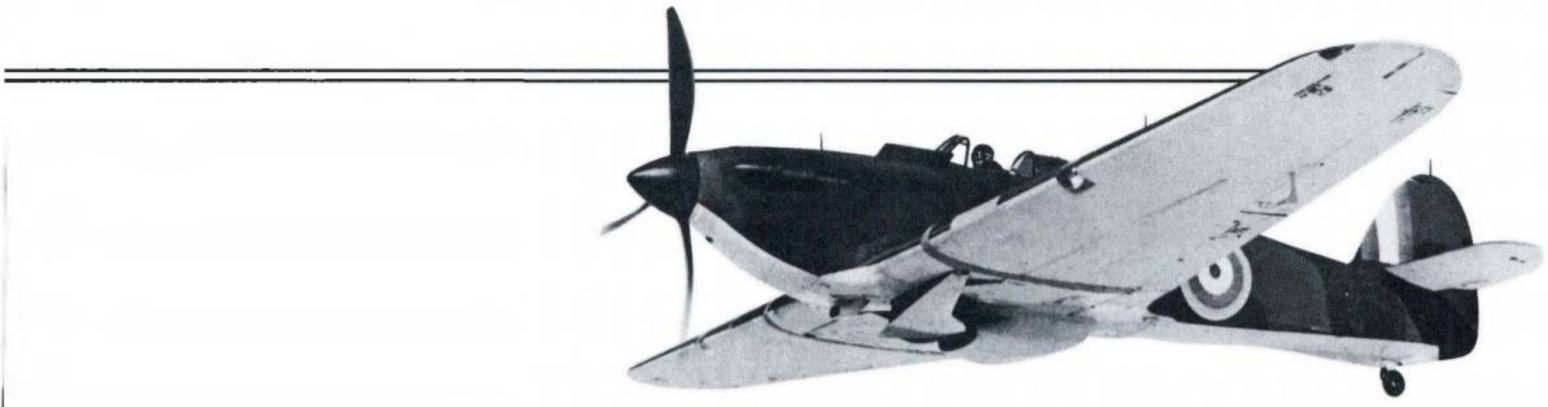
The firm was established in 1909 as a manufacturer of railway rolling stock, with its head office in Montreal and production facilities in several other locations. In time it became Canada's major rolling stock manufacturer, and has continued in that field with considerable success up to the present. Passenger railcars manufactured by Can-Car are the mainstay of the Toronto GO-Transit system, while commuters in places as far apart as Boston, Massachusetts, and Santa Clara, California, also ride in the company's subway and streetcars.

Can-Car's entry into the aviation industry came in 1936, when it obtained a licence to assemble the Grumman G-23 Goblin, a naval biplane fighter designed and built in the United States in 1931. The company reportedly spent more than a million dollars modifying the existing Fort William plant to produce these aircraft, and the first Goblin built there was flown on 6 February 1938. According to a newspaper reporter for the *Fort William Times Journal*, Can-Car's chief test pilot, Captain George Ayde, an old Etonian from Exeter in England, delighted the assembled crowd with a series of loops, rolls and spins, in a display which culminated with the aircraft in an "almost vertical dive from 10,000 feet reaching a speed of 300 mph".

Despite Captain Ayde's ability to fly the Goblin to its limits, it must have been clear to those in the industry that the design was already dated. As an aircraft on which a workforce could be trained in airframe construction, it was perhaps not a bad choice, for it combined a duralumin stressed-skin fuselage and tail with wings consisting of metal ribs and spars covered by fabric. It was also the first aircraft of its kind to have a retractable undercarriage. From a marketing perspective, however, the choice seems less suitable. The Goblin was already close to being obsolete by the time assembly started, and there could have been no obvious market among the major aviation powers, who already possessed higher performance biplanes or were developing faster, low-wing monoplanes.

By mid-1938, at a rate of 3 per week, 42 machines had been assembled at Fort William, one each for Nicaragua and Japan, and the remaining 40 for Turkey. Thirty-four of the latter had been shipped when complaints were received from representatives of the Spanish Nationalists that Spain, not Turkey, was the final destination of these aircraft. Shortly thereafter they began to appear in the service of the Republican Air Force in the Spanish Civil War. Being assembled from U.S. components, the aircraft came under an armaments embargo which that country had in force, and the final six in the shipment were prevented from reaching Spain. In the inquiry which followed, it transpired that Can-Car officials had been the victims of forgery and deception. No charges were ever laid against the company, although its motives have been questioned. At least one eminent aviation historian — K.M. Molson writing in *Canadian Aircraft since 1909* — suggests that Can-Car may even have had the Spanish market in mind when it obtained the original licence.

At about the same time rumours began to appear in the local press that the company was about to sign



Hawker Hurricane Mk I.

a $4,000,000 contract with several unnamed South American governments for a further 105 Goblins, but no orders materialized. An additional 10 G-23s were built, and with the exception of one sent to Mexico, these were offered to the RCAF along with the remaining six from the "Turkish" order. The RCAF was reluctant to accept the aircraft, and the offer had to be made three times before the desperation produced by war forced the Canadian government to take the Goblins into service in mid-1940. For a time, these 15 obsolete aircraft formed the country's main fighter force on the east coast, but by April 1942 all had been replaced. Several of the Spanish machines survived to be taken over by the Nationalist forces at the end of the Civil War, and the last was only scrapped in 1955. A decade later, the Nicaraguan G-23 was rescued from a Managua scrap yard, rebuilt and flown to the United States by J.R. Sirmons, a crop-dusting pilot from Oklahoma. It was subsequently acquired by the Grumman Aircraft Company, refurbished as an FF-1, its original U.S. designation, and presented to the Naval Aviation Museum at Pensacola, Florida, where it remains as the only surviving example of its type.

Despite the failure to generate additional orders for the Goblin, the Can-Car management obviously saw a future for the company in aeronautics. While the Goblin was still in production, the engineering department at Fort William was already working on a number of projects which were expected to allow Can-Car to develop and manufacture its own designs rather than simply assemble components produced by other companies. Unfortunately, none of these projects got beyond the prototype stage, perhaps because of inexperience, but also to a large extent because of external pressures created by the approaching war.

In mid-1937, Can-Car took over the design of a two-seat trainer, which became known as the Maple Leaf I. The prototype flew in April 1938, but by June of that year work on it was discontinued when its performance failed to meet expectations. It was followed by the Maple Leaf II, the company's first original design effort. The engineering team led by Elsie MacGill, at that time the only female chief aeronautical engineer in Canada, had the prototype ready for its first flight in the fall of 1939. Although it gave creditable performances in tests by the Department of Transport and the RCAF, the Maple Leaf II never reached the production line, mainly because by that time the company had already committed its Fort William plant to the much needed Hawker Hurricane.

A similar fate befell Can-Car's only other attempt to produce its own design. This was the FDB-1, commonly called the "Gregor Fighter" after Michael Gregor, the designer and chief aeronautical engineer who preceded Miss MacGill. The first all-Canadian designed fighter, the FDB-1 was planned as a highly manoeuvrable biplane fighter/dive bomber, with retractable undercarriage, and powered by a Pratt and Whitney Twin Wasp Jr. engine. Like the Goblin, its fuselage was of stressed-skin construction, while the wings were fabric-covered metal structures. Port and starboard sections of the upper wing were separate, joining the fuselage in a gull-wing form, which helped to improve forward and upward visibility, often a problem on biplanes. Surviving photographs reveal an aircraft which seems short and tubby, but with relatively clean, uncluttered lines. Unfortunately, despite the excellent manoeuvrability of the prototype, which first flew in December 1938, its speed was considerably less than predicted and there were problems with the controls and wing flaps. No doubt these could have been remedied, and it has been said that the FDB-1 was potentially one of the most advanced biplane fighters ever built, but the day of the biplane was past. By this time also the company had become involved in what was to be its most successful contract, and the Gregor Fighter was placed in storage at Cartierville, Quebec, where it was lost in a fire in 1945.

With the Goblin under production, and development work being done on the Maple Leaf trainers and the

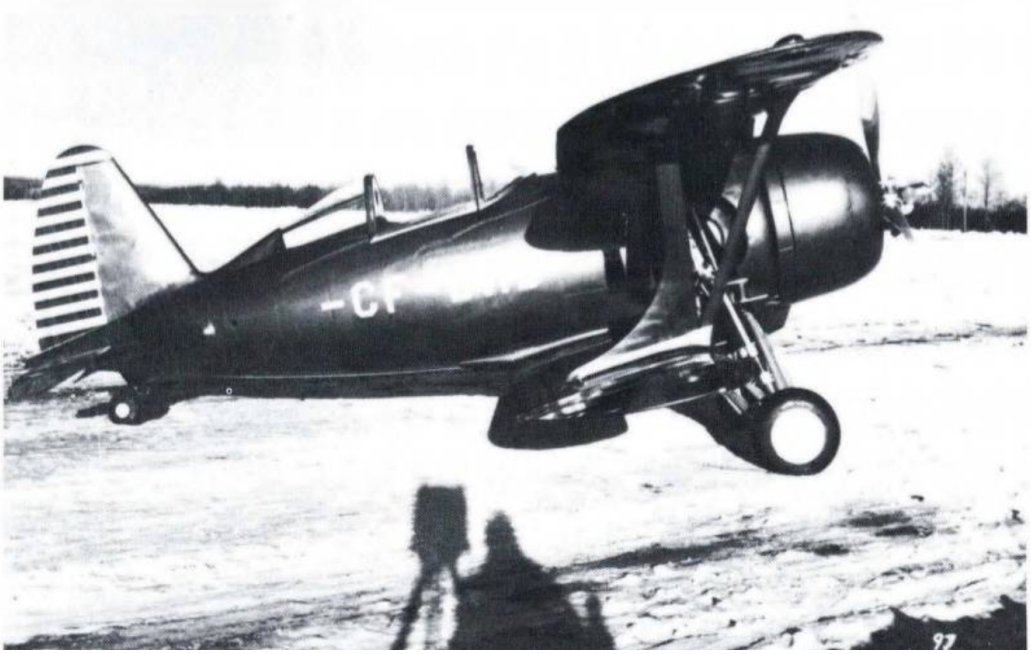
Grumman Goblins lined up at Fort William awaiting delivery to the RCAF.

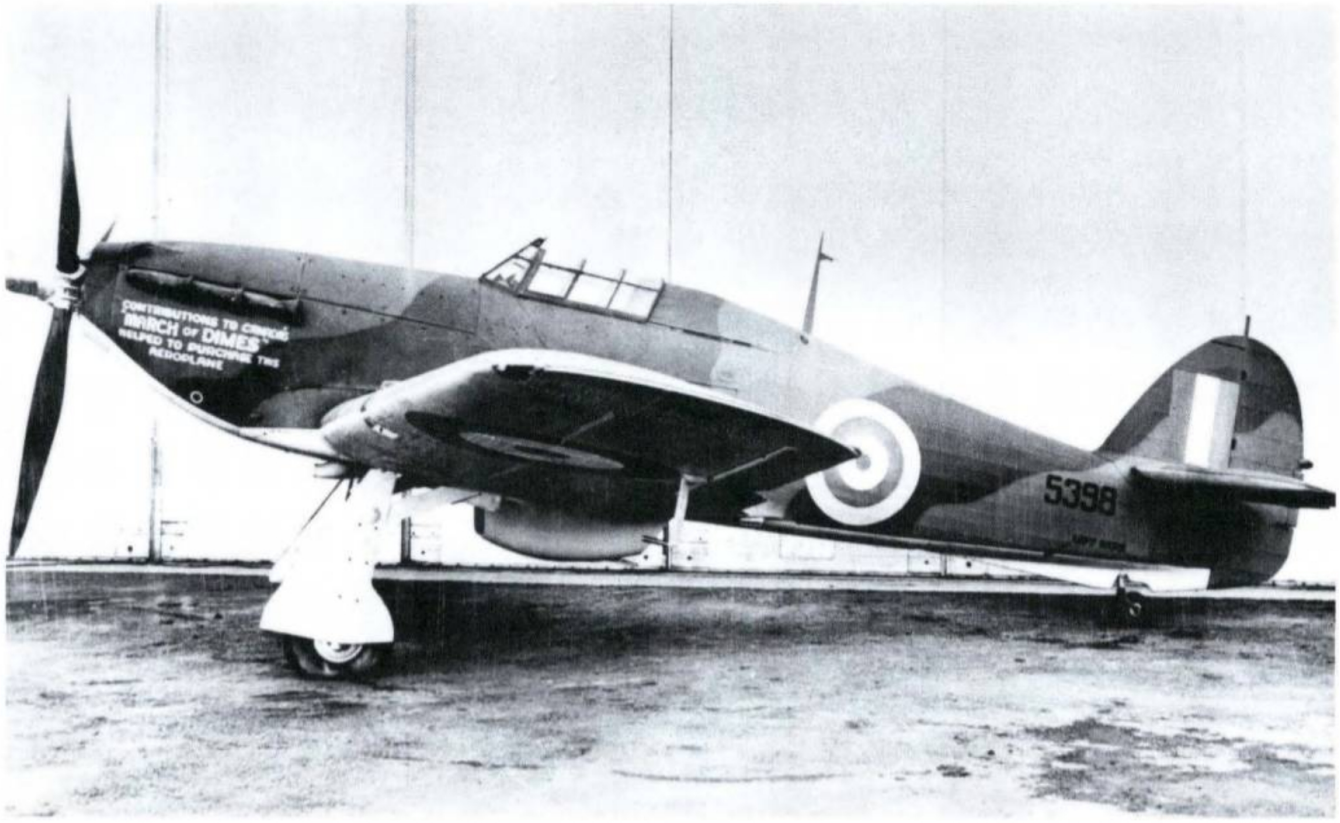
Gregor Fighter, 1938 was a hectic year for a company new to the aeronautics industry. By the end of the year, however, it was clear that even busier times were ahead. In November 1938 CCF was awarded a contract to produce Hawker Hurricanes for the RAF at its Fort William plant. The order was placed following a visit in August 1938 by Sir Edward Ellington, Marshal of the Royal Air Force, and member of a British Air Mission inspecting aircraft production facilities in Canada. Although the Munich Agreement signed only a few weeks later was to retard the outbreak of war for almost a year, the major powers were already re-arming rapidly. Britain saw Canada as a potential source of military material, with the added bonus that it was far removed from the main war zone in Europe. Such a strategic advantage was almost Can-Car's undoing: it was too far away. In 1938, the Fort William plant could offer 50,000 square feet of usable floor space, with an additional 72 acres available for expansion, as well as access to a new municipal airport under construction adjacent to the plant. With his usual combination of enthusiasm and exaggeration, C.D. Howe, then Minister of Transport, but well on his way to becoming "Minister of Everything", described the Can-Car facilities at Fort William as the largest and best equipped in the country at the time for producing aircraft. Later he was to admit that even with such a glowing endorsement, the British were of the opinion that the plant was too remote from the eastern shipping ports to allow production to be economical. According to Howe, they were only swayed when he assured them that the efficiency of the local workers would easily offset the extra transportation costs.

It is doubtful if C.D. Howe had any cost figures to back up his claim, relying instead on the experience and instincts of a consummate politician to present the right argument at the right time. His own political agenda probably also played a part in his strong support for Can-Car's cause. At the time he represented the riding of Port Arthur which stood to benefit from a new aircraft factory in Fort William, its neighbour at the Lakehead. Whatever Howe's reasoning, the workers certainly lived up to his expectations. The company had put together a young production team of individuals who were not only qualified and capable, but were also enthusiastic about being part of a growing aeronautics industry. Led by Elsie MacGill, and with an assembly line staffed by skilled workers recruited locally and from all across the country, they produced Hurricanes that were the equal in quality and performance of anything built by the well-established Hawker company in England.

The initial Hurricane order was for 40 planes, built to Mk 1 specification with British-made Rolls-Royce Merlin III engines and eight .303 Browning machine guns in the wings. These models depended almost entirely on British components, from engines to instrument gauges, and materials such as steel tubing, aluminum sheeting and metal castings which were formed, pressed and machined at Fort William. At that time, the Canadian aircraft industry was incapable of producing these items from scratch. With the outbreak of war, shipping delays and losses created problems with such a system, and shortages of imported British material regularly threatened production. G.C. Kemp, a foreman at that time, recollects that at one point a delay in the arrival of Merlin engines was overcome by flying as many as 30 Fairey Battle bombers into Fort William, where the engines were removed and fitted into the Hurricanes. The situation was serious by early 1941, and the later Mk 1 machines were shipped without engines, instruments or armaments. Quality control was maintained through the random testing of individual aircraft, using engines and instru-

Three aircraft representing Can-Car's attempt to design and produce its own machines in the late 1930s. Top to bottom: Maple Leaf I, Maple Leaf II, Gregor Fighter.





A Hawker Hurricane purchased for the RCAF with donations from "The March of Dimes".

ments temporarily fitted for the test and removed again before shipping. In time, with new Canadian sources of supply and the introduction of the Packard Merlin built under licence in the United States, these problems were overcome, and in 1942 Hurricanes were leaving the plant at the rate of 15 per week.

The Hurricane I was in many ways a transitional design between the wood, wire and fabric biplanes of the 1920s and 1930s, and the metal-skinned monoplane fighters of the 1940s. It incorporated a metal frame, covered by aluminum alloy panels from the cockpit forward, and with a combination of wooden fairing and fabric over the rear fuselage. Originally the wings were also fabric covered, but all of the CCF-built Hurricanes had aluminum covered wings. Indeed, when Mr. A.D. Norton, head of the Tool Design Section at Can-Car, visited the Hawker works in England in 1939, he found the development of the metal-skinned wings less advanced than at Fort William. Apart from that, the basic structure of the Hurricane changed little in its lifetime. Some were modified to carry bombs, some had catapult fittings for shipboard operations, others had arrester gear, some were tropicalized, and at least two were fitted with skis by the RCAF.

The initial order for 40 machines provided experience in producing a modern warplane, but in some ways it was also a test to see if the company could meet the required standards. Under the watchful eye of the British Air Ministry's representative assigned to the contract, the company obviously passed the test, for the order was renewed, and in total 160 Mk 1 Hurricanes were built. Most of these were sent directly to Britain, where they were distributed as the need arose rather than being assigned by batch to any one squadron — this being made possible by the interchangeability of components among the British and Canadian-built planes. Twenty were delivered before the Battle of Britain, and participated in the fierce aerial fighting of August and September 1940. As the direction and intensity of the war changed, later Mk Is were employed in the air defence of Malta, and in the Middle East, where they were involved in ground attack sorties and convoy patrols.

Although Can-Car proved itself with the Hurricane I, most of the aircraft built at Fort William were Mk X, XI and XII variants. These designations were reserved for the Canadian aircraft, and reflect combinations of power plant and armaments which distinguish them from the British-built equivalents. All were equipped with Packard engines, for example, the Merlin 28 in the case of the Mk X and XI, and the Merlin 29 in the Mk XII. Both the Mk X and XI were

built with 8 machine guns, compared to the 12 of the Mk XII, but later specific aircraft from all three groups were modified to carry cannon and rockets as the Hurricane evolved into its intruder and ground attack role.

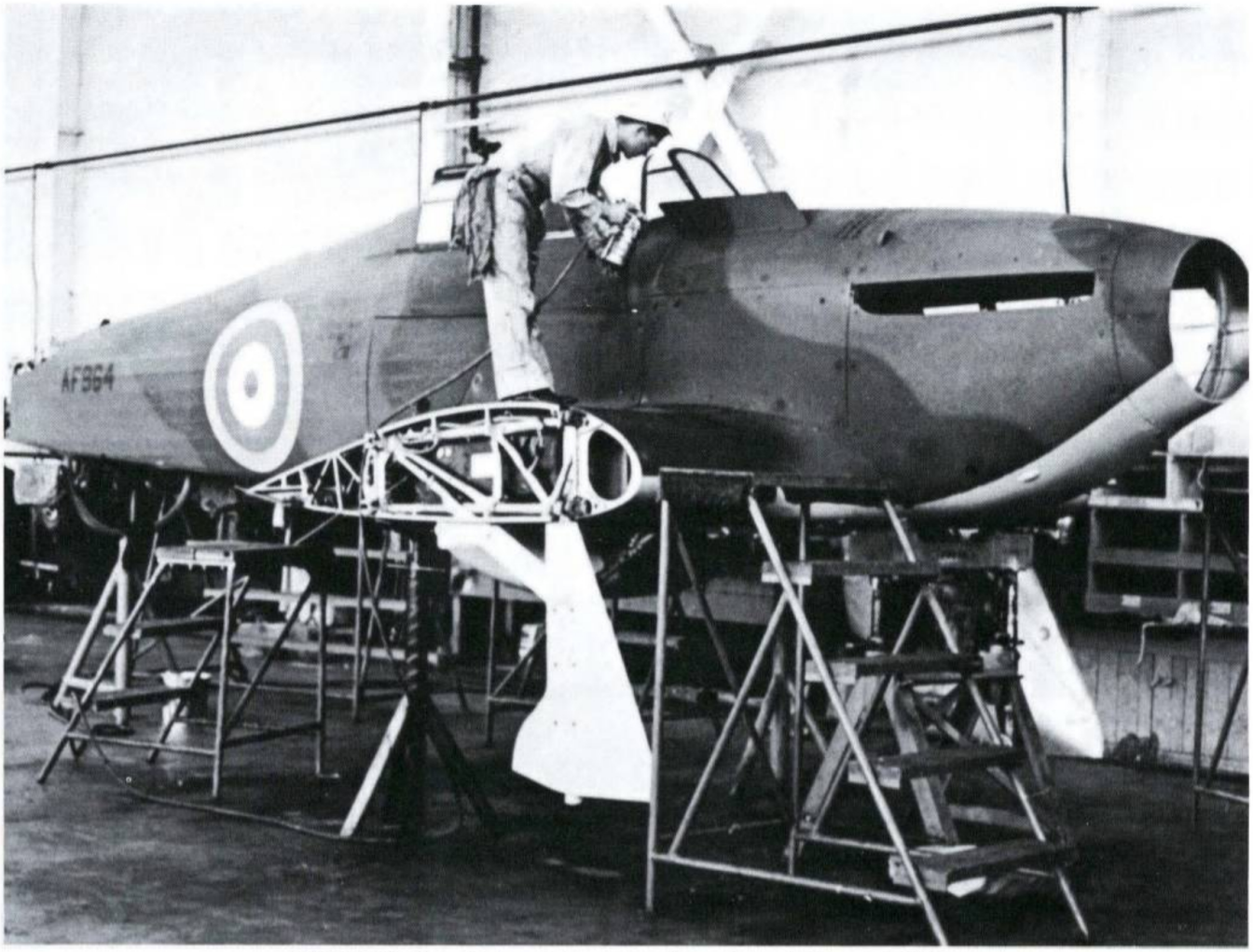
Most of the Hurricane Xs were initially sent to Britain, but some were later tropicalized and used in India. After many requests from the Canadian government, 30 of these aircraft were also released for use in Canada. These were followed by a batch of 400 Mk XIIs built specifically for the RCAF, and 50 Hurricane XIIAs, originally intended as Sea Hurricanes for the Fleet Air Arm, but subsequently released for service in Canada. Other Mk XIs and XIIs were shipped on the infamous Arctic convoys to Northern Russia as part of the some 3,000 Hurricanes supplied to the Soviet Union between 1941 and 1944.

In all, between January 1940, when the prototype flew, and June 1943, when the last Hurricane left the plant at Fort William, 1,451 aircraft of various marks were built, representing some 10 percent of all Hurricanes produced and almost half of the Canadian Car and Foundry Company's total production during the war years.

Only a handful of the 14,000 built have survived. In various states of preservation they can be found in museums, as gate guardians at airfields and occasionally at airshows. There are at least 5 surviving CCF Hurricanes in Canada. Most are from a group of 400 built specifically for the RCAF, and owe their survival perhaps to the fact that they did not face the rigours of combat, and had relatively short operational flying lives. They include one each on public display at the National Aviation Museum in Ottawa, the Calgary Centennial Planetarium, and one in private hands in Saskatchewan. Two others, one with the Canadian Warplanes Heritage in Hamilton, Ontario and one at the Reynolds Pioneer Museum, in Wetaskiwin, Alberta have been restored to flying condition. In addition to these, there are perhaps 4 or 5 other Hurricanes in various stages of restoration in Canada, and with some regularity rumours of new discoveries circulate through the vintage aviation fraternity — there is said to be another machine in a lake in Saskatchewan, for example, its location a closely guarded secret.

For historical and sentimental reasons, Hurricanes are very much sought after in Britain by historic air-

Can-Car workers, mostly women, fabricate fuselage frames and other components for the Helldiver.



A Hawker Hurricane fuselage being prepared for crating and shipment to Britain.

craft enthusiasts, and three of the best examples were originally Canadian. Two are Hurricane XIIs purchased in Saskatchewan in the mid-1980s, and shipped to England for restoration. The other is a Mk I, shipped to Britain in 1941. It is now part of the famous Shuttleworth Vintage Aircraft collection where it has been restored to flying condition. One of the Mk XIIs is also airworthy, and it is expected that the other will take to the air again in the future.

In 1941 it was rumoured that the production of the B-24 Liberator was to follow the Hurricane at Fort William, and a delegation from Can-Car did spend some time at the Consolidated plant in California during May of that year. Despite this, nothing further developed, and no contract was awarded. The following year, however, plans were set in motion for the construction of Can-Car's second major military order. By this time, the United States was heavily committed to the war in the Pacific, where the demand was high for carrier-based fighter-bombers. To help meet this need, CCF was awarded a contract for 1,000 Curtiss SB2C Helldivers, designed to replace the aging Douglas SBD Dauntless which had become the mainstay of the U.S. Navy and Marine Corps dive-bombing squadrons following Pearl Harbour.

The initial development of the Helldiver had begun in the U.S. in 1939. It was claimed that it would be capable of carrying a bigger bomb load, faster and farther than any other single engined dive-bomber, but the aircraft was plagued by stability and structural problems. Both the prototype and the first production model suffered in-flight structural failure, and the first machines to go into service encountered so many problems that at least three major modification programs were required before the type became acceptable. One plane was destroyed and one damaged beyond repair during test flights at Fort William.

The SBW was identical to the Helldivers produced by Curtiss in the U.S., being a single-engined, two-seat monoplane dive-bomber capable of delivering a 1,000-pound bomb load. It mounted two cannon in the wings and a .50 machine gun in the after cockpit.

A Helldiver over downtown Fort William (now a part of Thunder Bay, Ontario).

Apart from the fabric-covered control surfaces, it was of all-metal construction, with folding wings for aircraft carrier stowage. Combat experience led to the installation of larger engines, improved wing flaps and modified dive brakes, but none of the Helldiver variants was particularly well-liked by those who flew them. By the end of the war, when production was cancelled, Can-Car had produced 833 of the original 1,000 planes ordered. This compares with over 5,000 Helldivers produced in the United States. Some of the latter were flown into the 1950s by the air forces of Greece, Portugal and Thailand, but none of the SBWs seems to have survived.

While all of this was taking place at Fort William, other CCF factories and depots were also engaged in a myriad activities associated with aviation. As part of Canadian Associated Aircraft Ltd., Can-Car had entered into a contract in 1938 to produce the Handley-Page Hampden bomber. Its role in the consortium was the production of wings at its Turcot plant in Montreal for assembly with Canadian Vickers-produced fuselages and Fairchild tail sections at nearby St.-Hubert Airport. A similar cooperative effort was involved in the production of the Avro Anson, which was adopted as the main twin-engined trainer for pilots in the British Commonwealth Air Training Programme (BCATP) in Canada. Can-Car manufactured wings and fuselages at a plant in Quebec between 1941 and 1943, and subsequently produced more than 600 complete Ansons at a new factory in Amherst, Nova Scotia. In addition, in its facilities at St.-Hubert, Bouchierville and Dorval in Quebec, the company was heavily involved in the overhaul, repair and modification of a great variety of aircraft, which included Liberators, Battles, Hudsons, Mitchells, Dakotas and Mosquitoes, all famous names in wartime aviation.

At its peak in 1944-45, Canadian Car and Foundry employed some 15,000 men and women at more than half-a-dozen locations in Eastern Canada. Indirectly it supported several thousand more, employed by subcontracters hired to provide the many and varied components required in the production of modern aircraft. The Fort William plant with more than 900,000 square feet of floor space, and employing nearly 7,000 workers round the clock, was the company's biggest. Employees came from all over the country, attracted by the combination of good wages and a chance to help the war effort. Patriotism may no longer be fashionable, but in the 1940s it seems to have been very much alive. In the summer of 1941, for example, the entire workforce provided two days of free labour, which allowed them to present two Hurricanes to the "Wings for

A Beach Mentor, the last complete aircraft built at the Can-Car works in Fort William.

Britain" campaign. Later, in 1944, the company was presented with an award to recognize the high level of Victory Bond purchases made by the workers.

The raw employment statistics for the plant mask a significant change in the workforce as the war progressed. In 1940, the bulk of the company's employees were men. Apart from Elsie MacGill, the few women on the payroll were employed as clerks or secretaries. The need to increase output and the scarcity of manpower led the company to employ more and more women on aircraft production. They took their place alongside the men on the assembly line, and by the war's end they comprised 50 percent of the workforce. In photographs from that time they appear completely at ease assembling electrical components or operating machine tools. Can-Car's wartime development and its high level of productivity were in no small part due to these women, who were willing and obviously very able to fill these non-traditional roles.

The end of the war brought about a major reduction in the activities of Canadian Car and Foundry. Contracts were cancelled literally overnight, forcing the company to run down plant and lay off workers. In Quebec particularly, Can-Car closed down and eventually sold most of its facilities, but those at Fort William were retained, and it was there that the company's last two complete aircraft types were built. In 1946, as part of a deal to take over Noorduyn Aviation, CCF had acquired the production rights to the North American AT-16 Harvard trainer, and in 1951 the Fort William plant began to turn out the Harvard 4. In total 555 planes were built between 1951 and 1955, initially for the RCAF, but later for the USAF. Some of the latter were subsequently released for service with the West German Air Force. A considerable number of Harvard 4s are still flying, including two with the Canadian Warplanes Heritage in Hamilton, Ontario. Another ex-RCAF Harvard is in storage with the National Aeronautical Collection in Ottawa, and is said to be in airworthy condition, although it has not flown since 1973.

The Harvard was followed at Fort William by the Beach T34-A Mentor, a military version of the Beach Bonanza, which had been adopted by the USAF as a basic trainer. An initial order from the USAF for 34 aircraft was followed by one for 25 from the RCAF, and yet another from the USAF for 66. The Mentor remained an important element in the USAF training programs into the 1970s, but RCAF plans were changed after only one training course, and Can-Car therefore lost a potential source of continuing orders.

The Mentor was Can-Car's swansong in the aviation industry. The Fort William factory continued to manufacture a variety of aircraft components, including wings for both the DHC Otter and the Grumman CSF Tracker under contract from De Havilland Canada between 1956 and 1960. Front fuselage sections and wing tip tanks were made for the Canadair-built CF-104 Starfighter into the early 1960s, but no other complete aircraft were built. Since then Can-Car has manufactured a variety of products, such as bus and truck bodies and prefabricated housing, but has gradually reverted to the construction of railway rolling stock and subway cars.

In retrospect, the halcyon days for Canadian Car and Foundry were during the years when it was making a major contribution to the war effort. The company was not destined to produce a Beaver, a Dash-8 or a Challenger, but when it was most needed it was not found wanting. Given the times and the circumstances, that in itself was no mean achievement. ♦

The writer would like to thank A.D. Norton of Thunder Bay who provided much of the information upon which this article is based. The help of G.C. Kemp of Winnipeg, who kindly answered many questions on Can-Car's wartime activities at Fort William, and of A.J. Shortt of the National Aviation Museum, who provide additional technical data on the aircraft manufactured by CCF, is also gratefully acknowledged.

David D. Kemp is Associate Professor of Geography at Lakehead University, Thunder Bay, Ontario.

SELKIRK'S AGENTS

A Tale Of Three Settlements

By J.M. Bumsted

When Robert Semple was killed at Seven Oaks on the Red River in June 1816, he was not the first deputy of Lord Selkirk to die in the Earl's North American service. While Semple's was the first death by violence amongst Selkirk's agents, it would not be the last. Between 1803 and 1820, Lord Selkirk employed more than twenty men as deputies of various sorts in the three settlements he established in North America at Prince Edward Island, Baldoon, and Red River. A list of major agents includes:

Prince Edward Island:
James Williams (fl. 1803-1815)
Angus MacAulay (1759-1827)
Charles Stewart (1759-1813)
Basil Hall (1788-1844)
Captain John MacDonald of Tracadie (1742-1810)
William Johnstone (1779-1828)
Thomas Halliday (d. 1821)
Samuel Prescott Fairbanks (1795-1828)

Upper Canada (Baldoon):
William Burn (1758-1804)
Alexander McDonell (Collachie, 1762-1842)
Dr. John Sims (fl. 1806-09)
Thomas Clark (d. 1835)

Red River:
Miles McDonell (1767-1828)
Owen Keveny (d. 1816)
Colin Robertson (1783-1842)
Robert Semple (1777-1816)
Archibald McDonald (1790-1853)
Alexander Macdonell (1774-ca. 1828)

Although only three of these men died in his employment, almost without exception their service was unsatisfactory and terminated prematurely.

Because so few Canadians appreciate that Selkirk founded three settlements scattered across nearly 2,500 miles of what is now Canada, the tale of Selkirk's agents has never been put together into a coherent whole. With the exceptions of Halliday, Hall (who appears in the British *Dictionary of National Biography*), and Sims, for example, all the men listed above appear in *The Dictionary of Canadian Biography*, either because of careers apart from Selkirk (eight individuals) or because of their Selkirk connection (seven individuals). Fourteen of the eighteen listed above were Scottish-born, eight of them in the Highlands, although the list includes one American (Semple), one Irishman (Keveny), and one Nova Scotian (Fairbanks). Selkirk was obviously partial to the MacDonald clan, with two MacDonalds and three Macdonells among his American agents, and several more (including John MacDonald of Dalilia, his principal emigration recruiting co-ordinator) employed in the British Isles. Many of the MacDonalds were Roman Catholics, and at least three of Selkirk's subordinates (McDonell of Collachie, Miles McDonell, and MacDonald of Tracadie) were of that religious persuasion.

Between 1803 and 1815, when all three of his settlements were established and struggled for survival, Lord Selkirk was present on the North American side of the Atlantic for only sixteen months — from August 1803 to December 1804 — spending most of that time travelling and sightseeing in the United States. He made only two brief visits among his Prince Edward Island settlers, spent no more than two weeks at Baldoon, and he would not personally visit Red River at all until the summer of 1818. For the implementation of his complex emigration and settlement schemes, designed both to accomplish public good and to develop North American estates, Selkirk was forced to rely almost totally upon his employees.

Like most British landed aristocrats, Selkirk was accustomed to employing others to manage his affairs. Estate managers, factors, stewards, and various sorts of "men of business", including lawyers, were ubiquitous across the nation, constituting by the eighteenth century what amounted to a distinct and numerous profession which had expanded as far north as the outer Hebrides of Highland Scotland. Earlier generations had often employed kinfolk or those bound to the employer by non-economic ties, such as feudalism or the clan system of the Highlands. By the eighteenth century, however, such connections were declining, replaced by a strictly monetary relationship of employer

Robert Semple, Governor of the Red River Settlement, was among those killed in a violent encounter with mixed-bloods at Seven Oaks

and employee. While such managers were hardly perfect — and as the Highland lairds could testify they became more problematic the more distance their operations enjoyed from their employers — an aristocrat like Lord Selkirk could anticipate certain standards of loyalty and probity from his British deputies which he did not seem able to replicate in their North American counterparts.

To some extent the problem with American agents was hardly confined to the nineteenth century, as generations of absentee investors in colonial ventures could testify. Nor was it less than general in Selkirk's own period. Selkirk himself on more than one occasion referred to the "malignant effect of the American climate" on his subordinates. In a 1795 letter to Colonel Joseph Frederick Wallet DesBarres, Captain John MacDonald of Tracadie on the Island of St. John analyzed the situation of North American agents well. Both DesBarres and MacDonald had spent long periods of absence from their New World estates, leaving them in charge of trusted women — in the former's case a mistress, in the latter's a sister. DesBarres had commissioned MacDonald, now returned from Britain to British North America, to investigate the state of his holdings and to become his agent. MacDonald refused to act in any long-term capacity, insisting instead that the proprietor should manage his own holdings. Only the proprietor could undertake the complex decisions to be made in any extensive operation, MacDonald argued, adding that "it is a delicate Matter, for an Agent to yield up upon his own mere Judgment material points of another man's property." Moreover, competent and dependable agents were difficult to obtain. "Tell me if you Know a Proprietor living in England," wrote MacDonald,

> that has ever been able to hold an Estate in America. I will even venture to say that an American living always here, holding an estate in England, would lose it at the hands of Any one Steward in five hundred. When one succeeds to or Acquires an Estate, he takes up a trade — the trade of a Land Lord, or manager, of that Estate, which if he does not attend to regularly will be sure to fail; for it is a very minute trade requiring intimate Acquaintance with the Subject, renewed occasionally as former Circumstances alter or new ones occur. He must watch the Conduct of every one connected with it. He must be employed constantly on contriving. If this is the case with respect to Estates in Settled regular Countries, how much the more so in America, where the Estates are in a Manner in the State of Creation, and where the preying upon one another is reduced to a sort of legal System, & where Circumstances vary every day? It is true a good Agent may do it all. At the same time, how many do you know capable of so acting & susceptible of the trust?

MacDonald would later take his own advice, refusing to become the chief Island agent of Lord Selkirk in 1803 and rejecting an offer of the post in Red River which Miles MacDonell would subsequently accept.

But if the problem with North American agents was chronic, it was certainly exacerbated by particular problems created by Selkirk himself. Perhaps the most

Colin Robertson.

important factor was the sheer scale and ambitiousness of Selkirk's operations. A typical Selkirk project stretched over long distances with an extremely tight time-frame, which meant that Selkirk's deputies were constantly being forced to deal with unavoidable mishaps and cumulative if unwritten alterations in their original instructions. None of Selkirk's three settlement schemes bore much resemblance in the execution to his original intentions. In some cases he was personally able to effect a necessary modification, as in the case of changing the destination of hundreds of Highlanders recruited in 1802-1803 from Upper Canada to Prince Edward Island or shifting Highlanders recruited for a Canadian regiment to becoming Red River settlers, but even in these instances he left the working out of the details to his subordinates. As Angus MacAulay trenchantly put it in 1819, "no man ever covered a retreat with more address than I did [his] Lordship's in 1803 from Scotland."

Selkirk's deputies were typically forced to deal with events which had been totally unanticipated and for which consultation with him was impossible. Not only did Selkirk initially fail to recognize that the swampy property he chose for settlement in Upper Canada, while well located in most respects, was malarial and would produce an epidemic among his settlers, but he was equally unable to appreciate that those who survived the epidemic would refuse, despite his orders, to move to higher ground. In Red River, the unexpected problems faced by Miles McDonell reached legendary proportions, including failures to recognize in advance the extent of the hostility of the North West Company or of the local mixed-blood inhabitants.

The complexity of Selkirk's schemes meant that his North American subordinates were constantly improvising in the face of impending disaster, as yet another brilliantly conceived paper strategy fell apart through unavoidable real circumstances. But complexity also meant that his delegates were subject to many internal confusions of role and function, as well as being forced to deal continually with external misconceptions and criticisms.

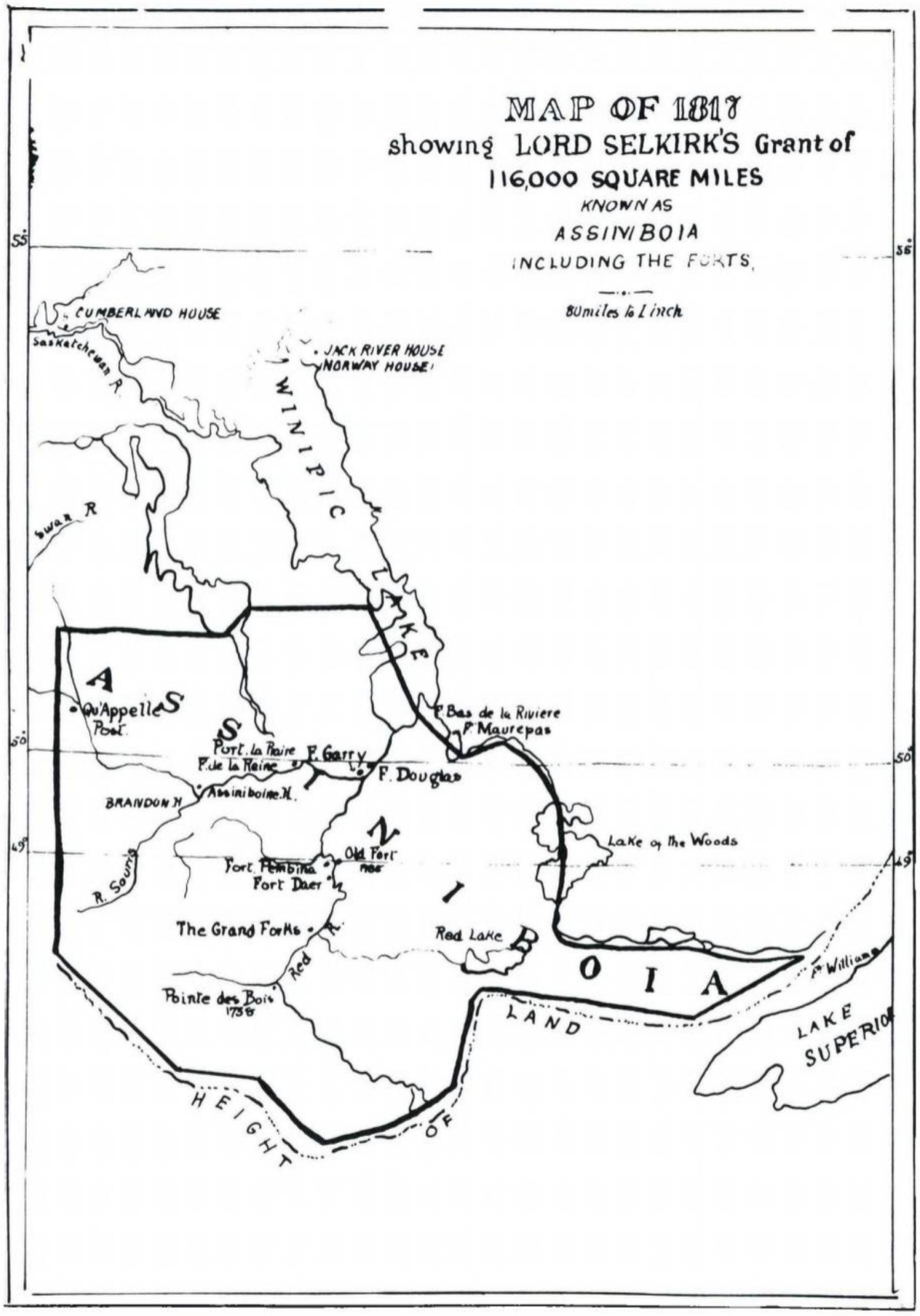
Metropolitan Toronto Library

Alexander McDonell: Trouble at Baldoon.

To turn to the latter situation first, in all three settlements Selkirk created expectations which could quickly turn to fear and hostility on the part of those outside his operations. On Prince Edward Island, criticism of Selkirk and his projects came chiefly from the faction in political opposition, although many of his settlers were unhappy that he had not kept all his promises. What saved Selkirk on the Island was the fact that his settlement there had been a fall-back operation, and he did not really intend to create a major landed estate there. In Upper Canada, however, the government and its officials were from the first inherently hostile to the institution of a major absentee landholder into the colony.

The situation in Red River was clearly the worst, in respect of complex intentions. Here Selkirk inextricably connected his settlement with the fur-trade rivalry by accepting a grant from the Hudson's Bay Company and by running the foundations of his colony in tandem with a new policy of business competition against the North West Company. No amount of attempted clarification ever succeeded in distinguish-

Archibald McDonald.


MAP OF 1817
showing LORD SELKIRK'S Grant of
116,000 SQUARE MILES
KNOWN AS
ASSINIBOIA
INCLUDING THE FORTS.
80 miles to 1 inch
55°
56°
50°
49°
CUMBERLAND HOUSE
Saskatchewan R.
JACK RIVER HOUSE
NORWAY HOUSE
WINIPIC
LAKE
Swan R.
ASSINIBOIA
Qu'Appelle Post
Fort La Prairie
F. de la Reine
F. Garry
F. Douglas
F. Bas de la Riviere
F. Maurepas
Assiniboine R.
BRAINDON H.
Lake of the Woods
R. Souris
Fort Pembina
Fort Daer
Old Fort
The Grand Forks
Red Lake
Red R.
Pointe des Bois
1738
Ft. William
LAND
LAKE SUPERIOR
HEIGHT OF

ing the two matters, in the eyes of the North West Company or of either Canadian or Colonial Office officials. Indeed, Selkirk and the Hudson's Bay Company often confused the two themselves, and an army of bookkeepers were unable to separate at the time of his death Selkirk's expenditures for the Company from those for his settlement.

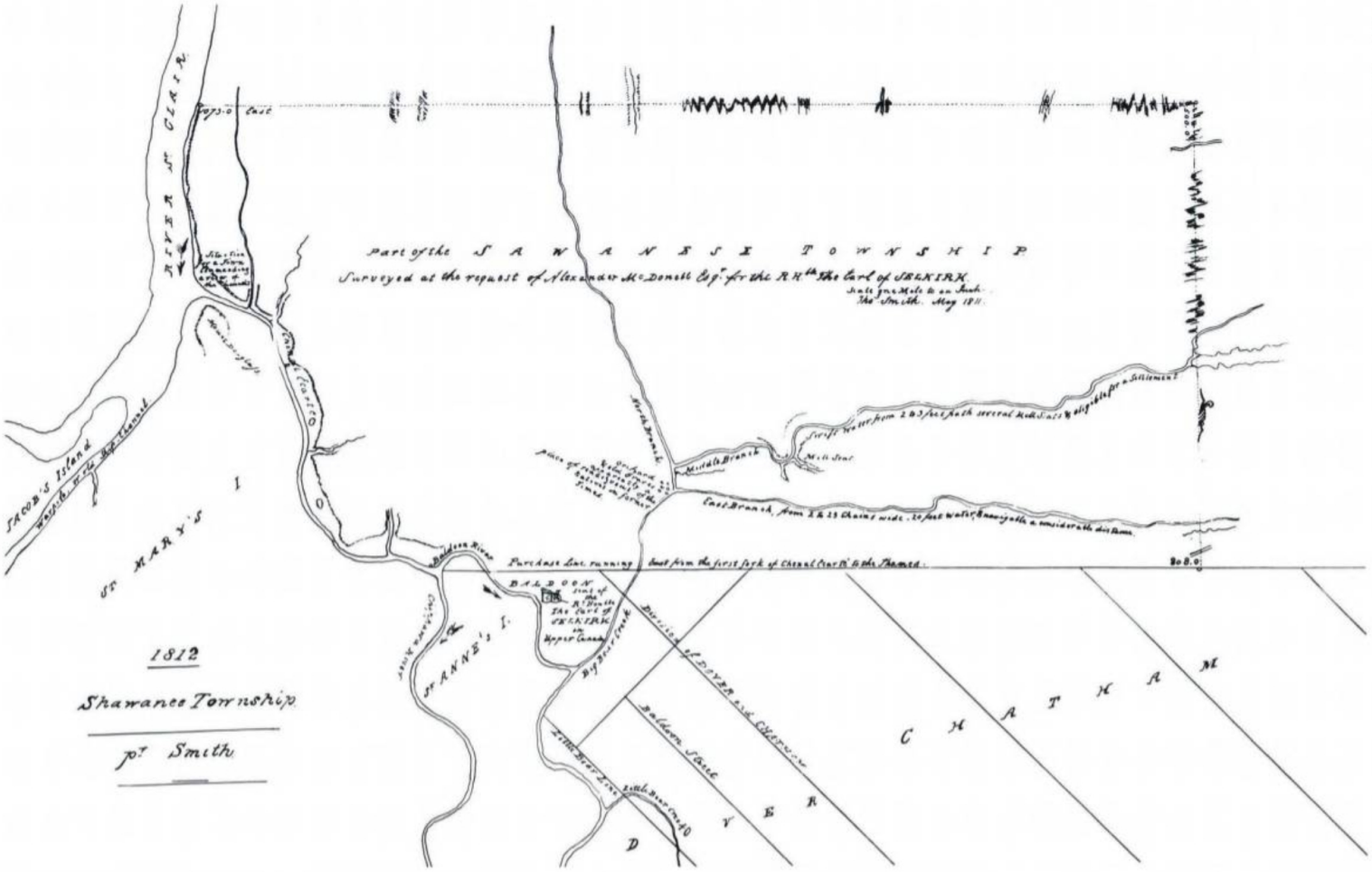
If outsiders were confounded by the overlapping of Selkirk's various enterprises and projects, his deputies themselves were often resentful about chains of command, constantly jousting with each other at the margins of authority. William Burn, who had recruited labourers for a proposed sheep farm in Upper Canada which he was expected to manage, was quite upset in 1804 when Selkirk suddenly appeared at the farm with "2 Gentlemen or sumthing like Gentlemen", one of whom was appointed Upper Canadian agent and Burn's superior. That agent, Alexander McDonell of Collachie, had scarcely a good word for Burn (who died of a local fever in September 1804) or his successor, Dr. John Sims, who saw the settlement through several malarial attacks until his dismissal in 1809. In Red River, Miles McDonell fought constantly with William Hillier, his autonomous counterpart in the service of the Hudson's Bay Company, and with his second in command, Owen Keveny, who accused Miles of "treatment which has given him disgust." Lord Selkirk was forced to write to McDonell complaining that Keveny had been so "completely thrown aside & employed to no useful purpose." Miles also at least initially resented Archibald McDonald, who had assisted with recruiting in Scotland and came out to Red River as a sort of Selkirk protégé, having been sent for medical training in London by the earl. During the spring of 1816 Robert Semple — "Mr. Simple" as Colin Robertson always referred to him in correspondence — was constantly at loggerheads with Robertson, who was a freelance agent for both Selkirk and the Hudson's Bay Company. Robertson departed Red River in disgust on 11 June 1816, convinced that the colony was doomed under Semple's leadership.

Internal dissension among Selkirk's deputies was kept down at Baldoon by the failure of Alexander McDonell to honour his commitment to his employer to reside there. Petty squabbling among those employed by Selkirk as his representatives at Red River was endemic, and certainly helped contribute to the military weaknesses of the settlement which ended so disastrously at Seven Oaks. In the case of the conflict between Colin Robertson and Robert Semple, the disagreement was at root not petty at all, but over major strategic issues. Robertson wanted to take aggressively what he saw as the inevitable battle with the Métis to them outside the colony, while Semple preferred to adopt a more measured defensive position. But while both Baldoon and Red River witnessed constant dissension among Selkirk's deputies, the worst situation occurred on Prince Edward Island.

John Ross Robertson Collection

Lord Selkirk: Non-transferable charisma.

On the island, there had been trouble from the outset between Angus MacAulay and Selkirk, particularly over the honouring of Selkirk's pledges to his Highland settlers. MacAulay had recruited the Highlanders to go to Upper Canada, and while some of the new arrivals were sent on to Baldoon in 1804 — many to die of malaria — most of the recruits brought to the Island by Selkirk in 1803 were settled under quite different terms than those which had been originally promised. From Selkirk's perspective, the refusal of the British government to accept his Upper Canadian plans necessitated a complete reconceptualization, which understandably meant that old commitments would be replaced by new ones. The way in which MacAulay's unhappiness chiefly expressed itself was in opposition to James Williams, who had been selected by Selkirk as his principal agent in Prince Edward Island. In a series of confrontations between Williams and the settlers over the winter of 1803-1804 MacAulay took the emigrants' part, a position he would continue to maintain throughout his lifetime. The battle between Williams and MacAulay would become part of the political fabric of the entire Island. Williams became a member of the so-called "cabal", which governed the island against the policies of the lieutenant-governor



Sketch map showing the location of Selkirk's Baldoon Settlement below Lake Huron on Lake St. Clair.

and his supporters, known as the "Loyal Electors", of which MacAulay was a member. Williams and MacAulay headed rival groups of Highlanders to the polls in several elections, and competed with each other for the political allegiance of Selkirk's settlers. MacAulay complained that Williams used his power as agent to invoke loyalty, while Williams protested that MacAulay used the accumulated grievances against Selkirk to incite the populace to turbulence.

Part of the problem on Prince Edward Island (as elsewhere) revolved around the fact that Selkirk had considerable personal charismatic qualities that were undelegatable, although his elite status could be assumed by others in local situations. In all three settlements and in the recruiting that preceded them, Selkirk's presence was a powerful factor, described in almost mythical proportions by eye-witnesses. He was, of course, an Earl, even if only one of the Scottish variety. He was also tall and striking in appearance, with his red hair and aristocratic features, and was very glib and credible in conversations with ordinary folk, often conducted in a serviceable Gaelic that must have surprised his auditors. According to Angus MacAulay's analysis, Selkirk's success in attracting and leading his settlers was a direct result of his assumption of the role of surrogate Highland chieftain, and MacAulay claimed disappointment that the Earl never seemed to appreciate the obligations to people that he had thus assumed — or the importance of choosing Highlanders to deputize for him. It was certainly true that many of Selkirk's chief agents, including Williams, Semple, and the two McDonells, were not themselves Highlanders, although the latter two had been born in Scotland north of the Highland fault and claimed Highland background. Both McDonells, however, had lived most of their lives in North America, and completely failed to achieve any sympathy or empathy with the ordinary Highlander. Their problems were doubtless exacerbated by their mistaken belief that they *did* understand Highlanders. In any event, although Selkirk's agents could hardly take over his charisma, they inevitably became important men

National Archives of Canada

National Archives of Canada

View of Selkirk Settlement, Red River, circa 1817, a sketch ascribed to Lord Selkirk.

in their communities through assumption of his status and financial backing. As important men they soon began to ignore the interests of the employer upon whom their position ultimately depended. Both Williams in Prince Edward Island and Alexander MacDonell became members of the ruling elites of their respective colonies, partly because of their business relationship with Selkirk.

Although Selkirk obviously had bad judgment in picking his subordinates, to a great extent this characteristic was shared with his employees and constituted a sort of vicious circle. The Earl's American schemes were typically so patently farfetched and impossible of execution that most men with any common sense would have refused to have anything to do with them. We do know that Thomas Clark and John MacDonald of Tracadie rejected overtures from Selkirk in the early years of the century to become principal agents in Upper Canada and Prince Edward Island respectively, although both did serve in caretaker capacities later on after the principal damage had been done. We do not know how many others similarly spurned the Earl's service. Those who accepted his offers were as capable of self-delusion as Selkirk himself, which did not bode well for their administrative success. For his part, Selkirk did not listen either to criticism or realistic appraisals of situations, understandably preferring subordinates who did not challenge his views. These weaknesses were a built-in recipe for disaster with his deputies, particularly given their need for independent action.

If Thomas Clark and MacDonald of Tracadie were the most sensible of Selkirk's American agents, Alexander McDonell (Collachie) was probably the most honourable. For McDonell, like most members of his class, honour was a matter of considerable importance. While he never understood ordinary Highlanders, he lived his life according to his mother's early injunction "never to forget that all the blood in his veins was of a Highland gentleman." As an agent, McDonell was a walking disaster. He failed to keep his promise to reside near Baldoon, and devoted increasing amounts of his time to politics in York, losing control of expenditures in the process. The total cost of his administration to Selkirk is incalculable, but somewhere in excess of 10,000 pounds sterling. Nevertheless, McDonell did obey Selkirk's summons to come to England to report on his accounts, leaving Upper Canada on 29 June 1811. While the Earl was not happy with the expense, he did at least obtain a personal explanation of the accounts in a series of face-to-face meetings with his Upper Canadian subordinate.

Unlike Alexander McDonell, James Williams never explained his accounts in person, and easily qualifies as Selkirk's most dishonourable agent. Selkirk by 1806 became alarmed at Williams' failure to report at all on his stewardship, and sent a series of temporary agents, including his nephew Basil Hall, to the Island to investigate. They found no evidence of fraudulence, and Selkirk gave Williams another chance. By 1809 the Earl was writing to MacDonald of Tracadie that he could not continue to leave a man in charge who

neglected to make reports and disobeyed positive orders to present his accounts. At this point there was considerable evidence available to Selkirk that Williams had arranged bad contracts with unscrupulous timber merchants. Williams was also the talk of the island for living at Pinette with a woman not his wife, a situation finally reported to Selkirk by Thomas Halliday in 1815. One earlier letter to Selkirk from Williams, excusing a failure to come home with his accounts because of medical problems, describes symptoms suspiciously like venereal disease. Selkirk eventually went to court in an attempt to recover the estate papers from Williams, but he disappeared off the island before the case could be completed. Williams left Selkirk's Prince Edward Island property in a complete shambles from which it did not recover until long after the Earl's death, when another agent, the young shipowner Samuel Cunard, would begin to make it pay.

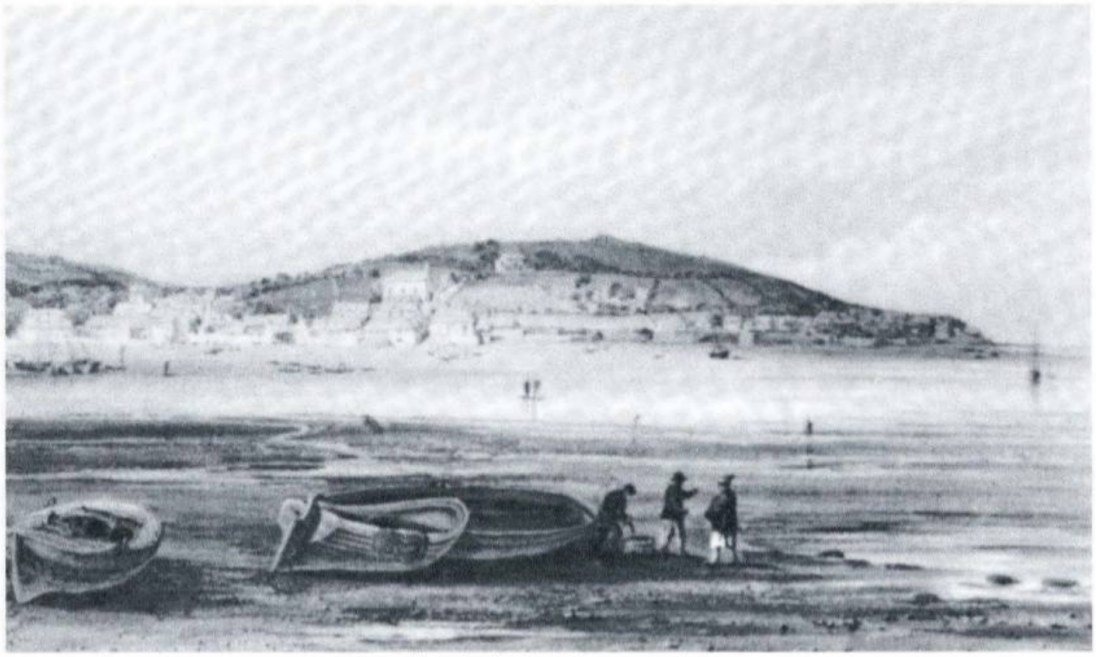
The most mysterious of Selkirk's American agents was undoubtedly the stonemason Thomas Halliday, who was engaged by one of Selkirk's Scottish "men of business" in 1809 "to go to Prince Edwards Island and to Carry a young girl with me of the name of Mary Cowchren," bringing her up as he did his own children. In return for this service Halliday was supposed to get one hundred acres of land and Mary another hundred acres from Selkirk's island estates. Mary was redheaded, and the Halliday family (as well as others, including James Williams) always believed that she was the illegitimate daughter of Selkirk himself. When she died in 1859, the tombstone erected by her daughter described her as "Mary Douglas, only daughter of Lord Selkirk." If Mary were an illegitimate child fathered by Selkirk before his marriage, sending her to an Island full of his settlers was hardly much of a coverup. It seems unlikely that Selkirk would have taken an ill-educated stonemason — whom he had never met — into his confidence if he was burying dark secrets, and Halliday's suspicions were probably unfounded, particularly given the relative shabbiness of the treatment afforded the girl.

The obvious candidate for Selkirk's most pathetic agent is William Burn, one of the three North American deputies who died in Selkirk's service. No one could ever describe the imperious Owen Keveny, murdered in 1816 on the Winnipeg River, or the equally imperious Robert Semple, as pathetic. Burn had not been eager to depart for North America, however, being under considerable pressure from a Miss Bacon not to go. But he agreed in 1802 to spend one winter in America to "set things agoing". In the spring of 1803, he received a letter from Miss Bacon announcing that she would not join him as she had promised, family circumstances making "it necessary she should remain near them." He thereafter plunged into his work and into heavy drinking to solace himself. A handful of men under Burn's command at Baldoon consumed eight barrels of whisky containing thirty-nine gallons each between July 1804 and his death in mid-September of that year. Alexander McDonell blamed Burn's demise on "the effects of excessive temperance" as well as on "the prevailing fever". His books were found in utter disarray, and Selkirk was never able to determine from them whether an aged mother in Scotland was entitled to back pay.

While almost all of Selkirk's subordinates in North America were disasters, probably no other failure was quite as critical as that of Miles McDonell. As incapable of keeping a set of books up-to-date as others of Selkirk's deputies, Miles did manage to maintain a lengthy and useful journal of his activities. Even that account only demonstrated his incompetence, as he lurched from one major misjudgment to another and completely failed to construct any infrastructure at Red River. In fairness to Miles, the task that Selkirk set him — to nurture in total isolation a colony that would be perceived as hostile to the interests of both the North West Company and the resident mixed bloods — was probably impossible. But Miles made nothing but mistakes. Thereafter he appears to have lost his nerve and his self-confidence. On 14 July of that year he wrote Selkirk, requesting "your Lordship be not prevented by any delicacy to send a suitable person to take my place, as I find myself unequal to the task of reconciling so many different interests." A few weeks later he suffered a nervous breakdown at York Factory, from which he had not fully recovered when he surrendered himself and his settlement to the North West Company in 1815 without a fight.

Although he was replaced as governor by Robert Semple in 1816, Miles operated as Selkirk's right-hand man in the capture of Fort William on 13 August of that year, and appears to have been at least partly responsible for the worst mistake of judgment Selkirk ever himself made. Miles was one of the loudest voices urging Selkirk to make an arrangement with the drunkard Daniel McKenzie, by which McKenzie transferred all the North West Company assets at Fort William to Selkirk in return for an estate in Scotland. This deal was so dubious, both in law and practice, that was thereafter difficult for Selkirk to withstand public scrutiny as a man of honour interested only in colonization. The Earl himself recognized the McKenzie deal was "ill-judged conduct" that compromised his position, and always dated his later troubles from this action. Miles McDonell had much to answer for as far as Selkirk was concerned.

Although Selkirk was often highly critical of his subordinates, we ought not to conclude that they did not more than occasionally respond in kind. Most complaints about their employer were probably not made



Prince Edward Island, early nineteenth century.

to his face or in direct correspondence with him, and only occasionally can be documented. The most outspoken of Selkirk's agents was undoubtedly Angus MacAulay, who argued vehemently with the Earl in 1803 and 1804, certainly making a considerable impression upon a man who was not accustomed to such confrontations. In 1810 Selkirk wrote to John MacDonald of Tracadie that MacAulay was

> . . . a character who cannot be unknown to you, tho you have probably not had the misfortune to know him as well as I do. His abilities are unquestionably great & he is also a man of great plausibility; but I have too certain experience, that reliance can be placed on anything he says: I have also seen in his conduct symptoms of a temper so diabolical, that in justice to human nature I can only describe them to a touch of mental derangement — which may perhaps account equally for his violence & his own inconsistency.

MacAulay was hardly inconsistent in his belief that Selkirk had taken advantage of his settlers, however, and he was not afraid to say so publicly. The vehemence of Selkirk's critique of MacAulay was equalled only by MacAulay's of him.

In 1814 MacAulay penned a lengthy letter to Selkirk, an epistle which was hardly submissive but certainly revealing. He described the officials of the Prince Edward Island government as hoodwinking Selkirk and his settlers indiscriminately, preying "equally like Peacham in Beggar's Opera upon the absent proprietors & industrious inhabitants." He offered to extricate Selkirk and the Island from the "old system ruinous to both". Selkirk did not answer this letter, and on 20 November 1819 — while the Earl was dying in the south of France unbeknownst to MacAulay — the good doctor published an open letter to Selkirk in the *Prince Edward Island Gazette* prompted by the Earl's advertised attempts to liquidate his Island holdings. This piece began by quoting Sully — "no man is a Hero to his valet de chambre" — and continued its attack unremittingly. MacAulay referred scathingly to "his Lordship's affability with a liquid smile" and his preference for "shuffling convenience than the confidence reposed in his promises", concluding with a sneering comment upon "the ingenuity of the noble Earl at Chess". These final remarks might well serve as a partial valedictory upon Selkirk's North American ventures, in which the Earl and his subordinates found nothing but grief. ♦

J.M. Bumsted is Professor of History at St. John's College, University of Manitoba, Winnipeg. He has written extensively on Lord Selkirk's North American settlements and is the author of "The People's Clearance: 1770-1815" (Edinburgh University Press/University of Manitoba Press, 1982).

The Journey of a Mind

By Marcus Van Steen

Alexander Graham Bell is one of those rare men of genius whose achievements are so many and varied that it is difficult to appreciate how much we owe to them. All that most Canadians know of Bell is that he came to Canada with his family over 100 years ago, lived for a while in a place called Brantford, invented the telephone and then, as a *Toronto Star* columnist once phrased it: "Left for greener pastures south of the border."

This account gives the impression that Bell's sole claim to fame is the telephone, an invention which he himself did not consider his greatest achievement. He was well aware that it was only by chance that he managed to be the first to file a patent on the telephone, and he was glad this was so, not because of the fame it brought him, but because it freed him from money worries and thus enabled him to work on whatever other matters engaged his restless, enquiring mind.

Before he was persuaded by his parents to accompany them to Canada, Bell had embarked on a career of teaching the deaf, and all his life he said that, should he be remembered, he hoped it would be for his work to ease the bonds of silence that imprison the deaf. His most famous pupil and friend, Helen Keller, dedicated her autobiography "To Alexander Graham Bell, who has taught the deaf to speak and enabled the listening ear to hear. . . ." Among her memories, Miss Keller recalls how her father took her, a six-year-old blind and deaf girl, to Bell, seeking his assistance. "I sat on his knee," she recalls, "and I could feel his tenderness and sympathy and I loved him for it. But I did not dream that the interview would be the door through which I would pass from darkness into light."

Alexander Graham Bell was born in Edinburgh on 3 March 1847, the child of a family of teachers. His grandfather, Alexander Bell, founded a successful school for boys in Dundee, and later moved to London where he ran a busy practice as an elocution teacher in an era when people took pride in being able to talk with clarity and precision. His son, Alexander Melville Bell, Bell's father, was equally successful as a teacher of elocution. His *Bell's Standard Elocutionist* was required reading for several generations of actors and platform speakers on both sides of the Atlantic. Bell's mother, a talented artist, ran an art school in Edinburgh. She met her husband when he sat to her for a portrait.

Of her children, three boys survived infancy. Alexander, the second son, was christened just Alexander as his grandfather was, but the boy soon felt there was something lacking in his name. On his eleventh birthday he announced that henceforth he would be known as "Alexander Graham Bell". His parents agreed it was a fine name and he could use it as he wished, but for them he would continue to be just plain Aleck.

All three boys were recruited at an early age to teach in their father's growing number of speech classes. Aleck quickly displayed a natural aptitude for teaching, and also a concern for the problems of the deaf. Their mother, always hard of hearing, had taken to using an ear trumpet. She had also learned the double-hand deaf alphabet and had taught Aleck to use it. She regularly accompanied her sons to church, even though she could hear nothing of the service. On their return home she would ask about the sermon and Aleck was always the one with the most to tell her because he had developed a special ability to communicate with his mother by talking in a low voice close to her forehead.

Aleck had little formal education. His parents gave him the rudiments of reading, writing and arithmetic and encouraged him to take an interest in everything in the world around him. When he showed an interest in music they enrolled him for piano lessons with the finest music teacher in Scotland, and for the rest of his life he enjoyed playing the piano.

At the age of ten he was enrolled in the Royal High School in Edinburgh. Four years later his father was astounded that his son had failed in geography, was weak in mathematics and knew nothing of the classics.

Scene at the telegraph office at Brantford when Bell made his second major test of the telephone with a long-distance call, 10 August 1876. The call was received in Paris, Ontario, over a circuit which went by way of Toronto for a total distance of about 70 miles. From a painting in the collection of the Bell Telephone Company of Canada.

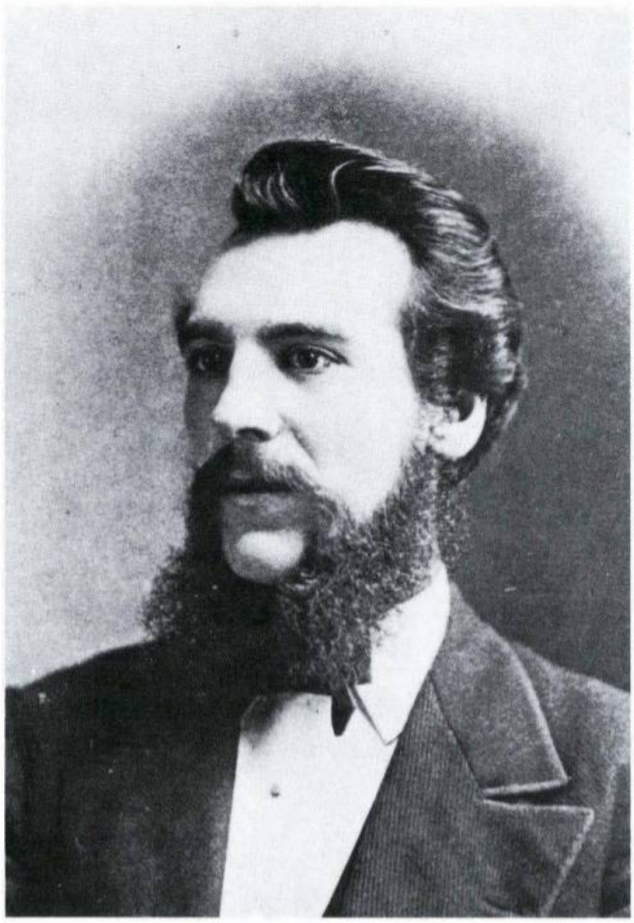
The result was that the boy was packed off to London for his grandfather to take him in hand. In later life Aleck said his grandfather was the greatest single influence in his life "because he made me ashamed of my ignorance."

An important part of Aleck's education was that through his father and grandfather he met some of the greatest scientists and teachers of the time. He discussed the telegraph with its inventor, Sir Charles Wheatstone, and had heard of the problems of laying the first trans-Atlantic cable from the foremost scientist of the day, Sir William Thomson (later Lord Kelvin). John Tyndall was a family friend, and the philologist Alexander Ellis encouraged Aleck in some of his research into phonetics.

When he was 16 Aleck was appointed pupil teacher at a school in Elgin, serving as tutor in music and elocution. The following year he was promoted to the post of resident teacher. While he was there he found time to experiment with the resonance of the mouth cavities, holding a pencil against the cheek and throat and tapping it, finding that vowel quality is produced by the resonance tones of the mouth cavities mingling with the tone of the voice. He wrote a 40-page report which earned him a footnote in the 1875 translation of *The Sensations of Tone* by Herman von Helmholtz.

In 1875 Grandfather Bell died and in the next five years the close-knit and affectionate Bell family was devastated by the deaths of Aleck's two brothers, victims of pulmonary tuberculosis, at that time a mysterious disease for which there was no cure. The grieving parents took a closer look at Aleck and were alarmed to note that he was showing signs of being sickly. Their doctor agreed that he was not in the best of health and recommended a change of air, a favourite prescription at that time.

The verdict was no sooner given than the decision was made. Aleck's father had been corresponding with an old friend who was now living in Paris, Ontario, and who had described in glowing terms the rustic



Courtesy and copyright, the Bell Family & National Geographic Society

Alexander Graham Bell, 1874.

beauty and salubrious climate of southern Ontario. The Bell family arrived in Ontario in August 1870, and bought an unpretentious house with garden and orchard on Tutelo Heights in Brantford, overlooking the Grand River.

The fame of the Bells had preceded them and within a month of their arrival in Brantford the elder Bell was invited to speak in Boston on his remarkable invention, Visible Speech, and it was not long before Aleck was teaching in the Boston School for the Deaf.

Visible Speech was perfected by Aleck's father in 1864, ten years after an international conference of philologists in London had agreed that a universal alphabet would be a boon to mankind. In this system, Bell reduced the sounds used in speech to ten basic symbols which portray the positions taken by the throat, mouth and tongue in uttering various sounds. The system can be learned quickly. Aleck mastered it in ten days and, before he left Scotland he was testing its value in teaching deaf people to speak.

Even though his teaching obligations took up most of his time, Aleck was continuing the research he had started in Scotland into the nature of sound and how it is produced and transmitted. Like most scientists at the time, he was fascinated by the telegraph, then in its infancy. He had the idea that if more than one message could be sent along the wire at the same time, it would add to the usefulness of the instrument. He started to experiment on ways by which this could be achieved. At the same time a dozen or more other technicians were working independently on the same problem. Aleck, however, was the only one to view the problem as one of sound. He was looking for the "harmonic telegraph", based on his knowledge that every sound produces sympathetic vibrations in other properly-attuned objects. The others were trying to produce a "multiple telegraph", using their knowledge of electricity.

Aleck's greatest problem at the time was a shortage of money. His only income came from the fees he received as a teacher, so if he wanted to eat and at the same time buy the equipment he needed for his research he had to spend much of his time teaching. Between 1872 and 1874 he worked all day with his pupils, worked far into the night with an assortment of strange devices, ate when he thought of it, and hardly slept at all. Each summer he returned to his family home in Brantford worn out, but sometimes accompanied by a pupil who needed special attention.

Aleck was very much in demand in the Boston area as a teacher because he brought new and successful methods for teaching deaf children to lip-read and to speak. In North America at that time the prevailing view was that very little could be done for deaf children apart from teaching them the standard sign language and keeping them either in an "Asylum for the Deaf and Dumb" or an "Institution for Deaf-Mutes". A number of parents were demanding something better, and some of these parents were wealthy enough to be able to get their own way.

Two of Aleck's pupils had fathers who became his friends and partners. Thomas Sanders, whose son George was born deaf, and Gardiner Greene Hubbard, whose daughter Mabel had become deaf when she had scarlet fever at the age of four, were impressed by the studious young man with the quick, animated gestures and the convincing aura of sincerity. Aleck always inspired confidence in those who came to know him, and both Sanders and Hubbard had absolute faith not only in his treatment of their children but eventually in his inventive genius. Hubbard, as a lawyer in patent cases, was certain that telegraphy had a rich future, and one way to share in it would be to back Bell's harmonic telegraph. He and Sanders advanced money to help Bell in his research, and that brought Bell's associate Thomas Watson into his life. In his autobiography, *Exploring Life*, published in 1926, Watson recalls his first meeting with Bell in the spring of 1874:

I was hard at work when a tall, slender man with a pale face, black-side whiskers and drooping moustache, big nose and high sloping forehead crowned with bushy black hair, came rushing over to my work bench. It was Alexander Graham Bell . . . bringing to me a piece of mechanism I had made for him. . . . It was a receiver and a transmitter of his "harmonic telegraph" . . . a simple affair by means of which, using the law of sympathetic vibration, he expected to send six or eight Morse messages on a single wire at the same time.

Watson was twenty at the time, seven years younger than Bell, and he states: "No finer influence than Graham Bell ever came into my life." At another point in his book, Watson states:

". . . the best thing Bell did for me spiritually was to emphasize my love of the music of the speaking voice. He was himself a master of expressive speech. The tones of his voice seemed vividly to colour his words. His clear, crisp articulation delighted me and made other men's speech seem uncouth."

The spring of 1875 was a bleak one for Bell, as is indicated in this unusually gloomy letter from Boston to his parents in Brantford:

I am now beginning to realize the cares and anxieties of being an inventor. In order to complete the apparatus as thoroughly as possible, I have decided to give up all teaching work for some weeks. Flesh and blood could not stand much longer such a strain as I have had upon me.

Courtesy the Bell Telephone Historical Collection

The former Mabel Hubbard in 1885, eight years after her marriage to Alexander Graham Bell.

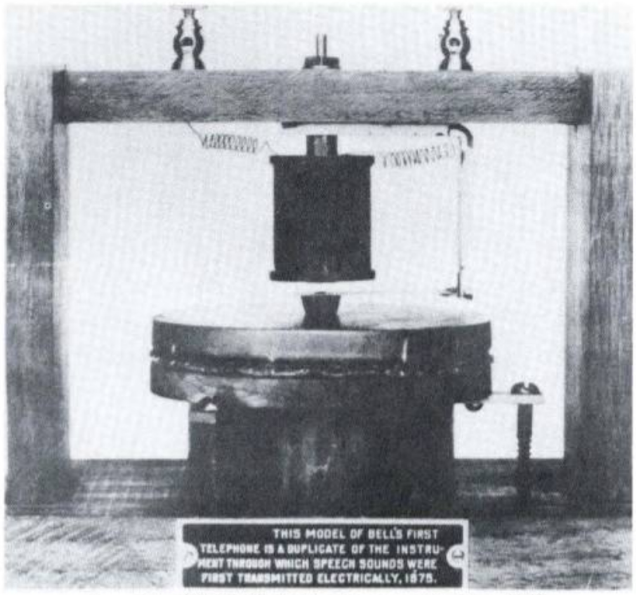
Bell's depression at this time had several roots. For one thing he was still short of money. Having cancelled all his classes, he had no money for personal needs. Hubbard and Sanders looked after his research expenses, but with their advances exceeding $100,000, (an immense sum in those days), Bell didn't want to bother them with requests for lunch money. He was equally reluctant to appeal to his parents.

Also, things were not going well with his harmonic telegraph. He had been granted a patent, and he had hoped this would mean he could now get to work on developing the telephone. But the telegraph companies had not shown any interest in his patent, and Hubbard was demanding that he work out something to make the companies take notice.

Another concern, and perhaps the greatest one, was that he was in love, and the object of his desires appeared to be beyond his reach. She was Mabel Hubbard, the deaf daughter of the man who appeared to regard him as an unrealistic dreamer. But he couldn't get her out of his mind. In accordance with the social standards of the time, Bell couldn't tell Mabel of his feelings until he had informed her parents, who made it clear that he should not approach their daughter until he had settled down to sensible work and abandoned the wild idea of talking over an electric wire.

Bell always maintained that the telephone was invented in Brantford during the summer of 1874. During those months at his parent's home, he says, he came to the conclusion that it would be possible to transmit sounds of any kind by electricity if we could only produce a current that varies in intensity as the air varies in density when a sound passes through it. Furthermore, he knew exactly what mechanism could transmit such a current. The story of how he got the mechanism to work has been told many times. The man who was there, Watson, gives this account in his autobiography:

He was pressing the receiving springs to his ear while 60 feet away I plucked the corresponding spring in the transmitting apparatus. Suddenly one of the springs stopped vibrating. I touched it again, but still it stuck. I then heard a great shout from Bell: 'What did you do then?' I showed him . . . the make-and-break points of the transmitter spring had become welded together so that when I snapped the spring the circuit remained unbroken while that strip



A model of Bell's first telephone used in June 1875.

of magnetized steel, by its vibration, was generating that marvellous current conceived by Bell. The speaking telephone was born at that moment.

Watson goes on to point out that only someone with Bell's trained ear and his preoccupation with sound could have so readily identified the clue that was flashed before them accidentally for a brief second. He tells us that Moses Farmer, who patented the electric fire alarm, told him that when he read about Bell's discovery he couldn't sleep for a week. He quotes him as saying: "Watson, that thing has flaunted itself in my face a dozen or more times, and I was always too blind to recognize it for what is was."

In the summer of 1875 in Brantford Bell worked on his telephone patent specifications. He also made a deal with a neighbour who was planning to visit London. The Honourable George Brown, owner and editor of the *Toronto Globe* and one-time Prime Minister of Upper Canada, owned a thousand-acre farm two miles from the Bell home and had on occasion enjoyed Bell hospitality. Aleck asked that Brown advance him $50 a month for six months so that he could concentrate on research free from teaching obligations. He also asked Brown to take the telephone specifications to London where he could file for a patent to the British Empire rights. In return, Bell would give Brown half-interest in the British, including Canadian, rights. Brown agreed, advanced the first monthly payment, put the patent application in his trunk and promised to telegraph Bell as soon as he had filed it.

Bell delayed filing for a patent in Washington because to do so might jeopardize his British patent. But, as it turned out, he waited in vain for news from Brown. Eventually Bell had to go back to teaching while Hubbard filed a patent application in Washington on 14 Feburary 1876. Eventually Bell learned that Brown had decided not to file for a patent because he feared he would look ridiculous believing that people could talk over a stretch of wire. This not only cost Brown a great fortune but also deprived Bell of most of the British rights and almost lost him the telephone altogether.

Bell became engaged to Mabel Hubbard on her 18th birthday, 15 November 1875. When Bell had finally approached her parents to get their permission for him to pay court to their daughter, the reception was mixed. Mrs. Hubbard regarded Bell as a fine, well-behaved young man, but her husband, who liked Bell, was not sure that he would be able to give Mabel the kind of life she deserved. They both agreed that, at 17, Mabel was too young to make up her mind and they asked him to wait a year. Bell agreed, but he soon found it necessary to tell them that he could wait no longer. Mrs. Hubbard admitted that he had behaved honourably in seeking their approval and she gave him her blessing. Mr. Hubbard was still reluctant, but had to admit that now that Bell had patented his telephone, he had removed the major objection to him joining the Hubbard family.

Seventeen months after their engagement, Aleck and Mabel were married, in July 1877, and they sailed for their honeymoon in England where he hoped, belatedly, to introduce his telephone.

The newly-wed couple remained abroad for 18 months, and their first child, a daughter, was born in London on 8 May 1878. Everywhere Bell was hailed as the inventor of the telephone, and the London paper which a year earlier had called the telephone "that latest American humbug," was now headlining it as "A Great Invention". Bell was kept busy giving demonstrations and delivering lectures to scientific organizations. A highlight was an invitation to demonstrate the telephone to Queen Victoria. The Queen was in residence at Osborne House on the Isle of Wight and telephone links were established from there to Cowes, Southampton and London. As the Queen noted later in her journal: "Professor Bell explained the whole process which is extraordinary . . . we talked quite easily with people at great distances from us, and we heard music quite plainly."

In his enthusiasm, Bell overstepped court etiquette by touching the Queen's wrist in order to attract her attention. It was a natural gesture for him who could talk to his wife only when she was looking at him and seeing his lips. Apparently the court entourage went into shock for a few seconds until the Queen calmly turned to Bell with a smile.

A major concern in England was the protection of Bell's telephone rights. A company had been formed but it was inept and apparently had no real conception

of the meaning and function of the telephone. It concentrated on making and selling telephones, obviously assuming that someone else would provide the lines and the exchanges. This prompted Bell to write a long letter to be distributed to the company officers, and to others who might be interested. Dated 25 March 1878, the letter looks forward to the future of the telephone with surprising accuracy:

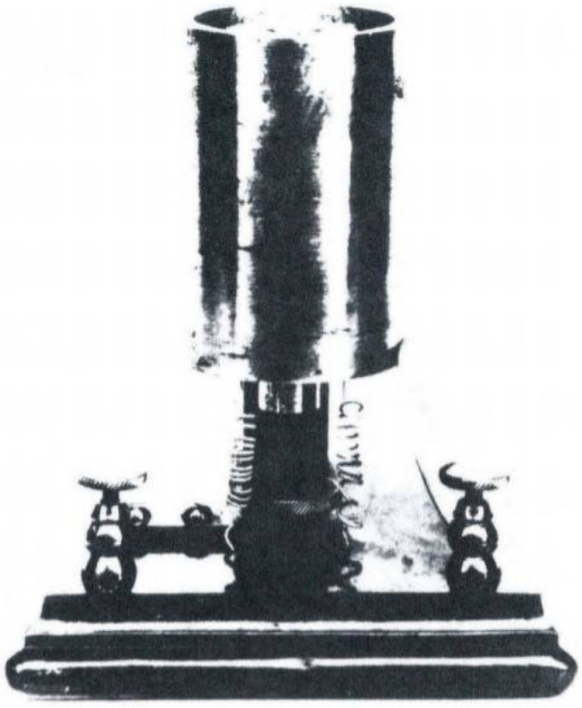
> . . . at the present time we have a network of gas pipes and water pipes throughout our cities. We have main pipes laid under the streets communicating by side pipes with the various dwellings . . . in a similar manner it is conceivable that cables of telephone wires could be laid underground, or suspended overhead, communicating by branch wires with houses, shops, offices etc., uniting them through the main cable with a central office where the wires would be connected as desired, establishing communication as far as the wires can reach . . . even to other countries and continents.

Bell hoped to return to teaching, but on his return to North America on 10 November 1878, he was met by Watson with a message that he was needed at once as a witness in a lawsuit challenging his telephone patent.

Bell's patent on the telephone has been described as the most valuable single patent in history, which explains why so much effort was made to wrest the patent, or some part of it, away from him and his partners. Over a period of 20 years, more than 600 lawsuits were filed challenging Bell's claim to the telephone. Some even alleged that Bell had stolen someone else's invention. Five of these cases went to the United States Supreme Court. Every decision was in favour of Bell. In spite of this, newspapers continued to print lurid attacks on Bell and his associates, labelling them as money-grubbing charlatans, liars, swindlers, frauds and thieves.

Throughout those years of public calumny, Bell reluctantly maintained silence. He spent most of his time in Washington where the interminable lawsuits demanded that he be on hand, but he kept working. In 1880 the French government presented him with the Volta Prize which, at that time, was worth about 10,000 U.S. dollars. Bell used the money to establish a laboratory not far from his Washington home.

The first task for the laboratory was to finish work on a project Bell had started in England where he had learned that the newly-found element selenium had a variable resistance to light. Bell realized this meant that it could be used in the transmission of sound, and he went to work to make this a reality. After months of trial and error he was finally able to patent an apparatus for transmitting sound by a light beam. Bell called it a photophone, and he was not surprised that little use was made of it during his lifetime. But he maintained to the end that: "In the importance of the principles involved, I regard the photophone as my greatest invention, greater than the telephone."



Bell made his call from Brantford to Paris, Ontario, with the aid of this receiver.

Bell used the photophone in devising the spectrophone, to be used in measuring the invisible parts of the spectrum, where the spectroscope is useless. He then put it away, but in recent years its principles have been put to use in film sound tracks and several electronic devices including the electric eye.

On 2 July 1881 an assailant shot U.S. President James Garfield. His bullet did not kill the president, but it lodged in his body and there was no medical procedure at the time to locate and remove it. Bell speculated that the bullet could be found by electrical induction and he set to work to devise the equipment. The President died before the apparatus was completed, but Bell carried on and a few weeks later, at a medical conference in New York, he demonstrated two methods of finding foreign objects lodged within the body, one by electrical induction and the other by a telephonic probe. Both methods were widely used until the X-ray was invented, and they are still used in situations where X-ray apparatus is not available.

While Bell was thus engaged, his new-born son died from respiratory failure. This prompted him to create a mechanical device for administering artificial respiration. It was an air-tight cylinder surrounding the

patient's torso, fitted to have air forced in and out by a suction pump. The device worked on the principle that when air pressure around the body is reduced, atmospheric pressure will force air through the mouth into the lungs. Bell called the device a "vacuum jacket" but it saw little use until others fitted it with an engine and called it the "iron lung".

The year also saw Bell's final withdrawal from Brantford. The growing demands on his time were keeping him from visiting his parents, and it was decided that they should sell their Brantford house and move to Washington. But it was not long before Bell had another house in Canada. In 1885 the entire Bell family toured Cape Breton Island and fell in love with the scenery which reminded them of Scotland. Aleck and Mabel were particularly impressed by Baddeck, a village on the Bras d'Or Lakes — actually a long arm of the sea. Across the bay from Baddeck a tree-covered peninsula rises to a noble headland 800 feet above the water. They climbed to the top of the headland and were entranced by the view of shimmering water and blue-green hills. They decided this was where they would have their summer home and the following year they returned, bought 50 acres and hired a Nova Scotia contractor to build their dream house.

The house, which they called Beinn Bhreagh (pronounced Ben Vree'ah) Gaelic for Beautiful Mountain, was built on a lavish scale to accommodate their numerous relations and friends. It started as a summer house but gradually their annual stay there grew longer. Bell built a laboratory on the grounds, and a house for a lab assistant. And for the last dozen or so years of his life he spent most of his time at Beinn Bhreagh where, for the first time, he was able to indulge his fascination for flying.

Bell had been fascinated by the idea of flight from childhood. Watson recalled that: "From my earliest association with Bell he frequently expressed his belief that a machine could be made in which men would fly." He held this belief even though most people, including some of his scientific friends, dismissed it as absurd. In the spacious land and water environment of Cape Breton Island Bell at last had the ideal place to test his belief.

His first approach to flying was to experiment with kites. He reasoned that before exposing men and costly machines to the unknown hazards of air currents and adverse winds, he should find out as much as he could about what he was up against. He designed kites of all shapes and sizes, using a wide variety of materials and carefully noting how each kite performed. It was probably relaxing exercise for Bell who, at the same time, was engaged in a tedious study to find out whether heredity was a factor in deafness. It was the most exhaustive survey of its kind up to that time, covering scores of families in which deafness had occurred. One such family was traced from 1664 through thousands of descendants until 1886.

The survey indicated that deafness can be inherited. Bell said it also strengthened his stand that deaf children should not be isolated from other children because the result was that deaf people usually married deaf people.

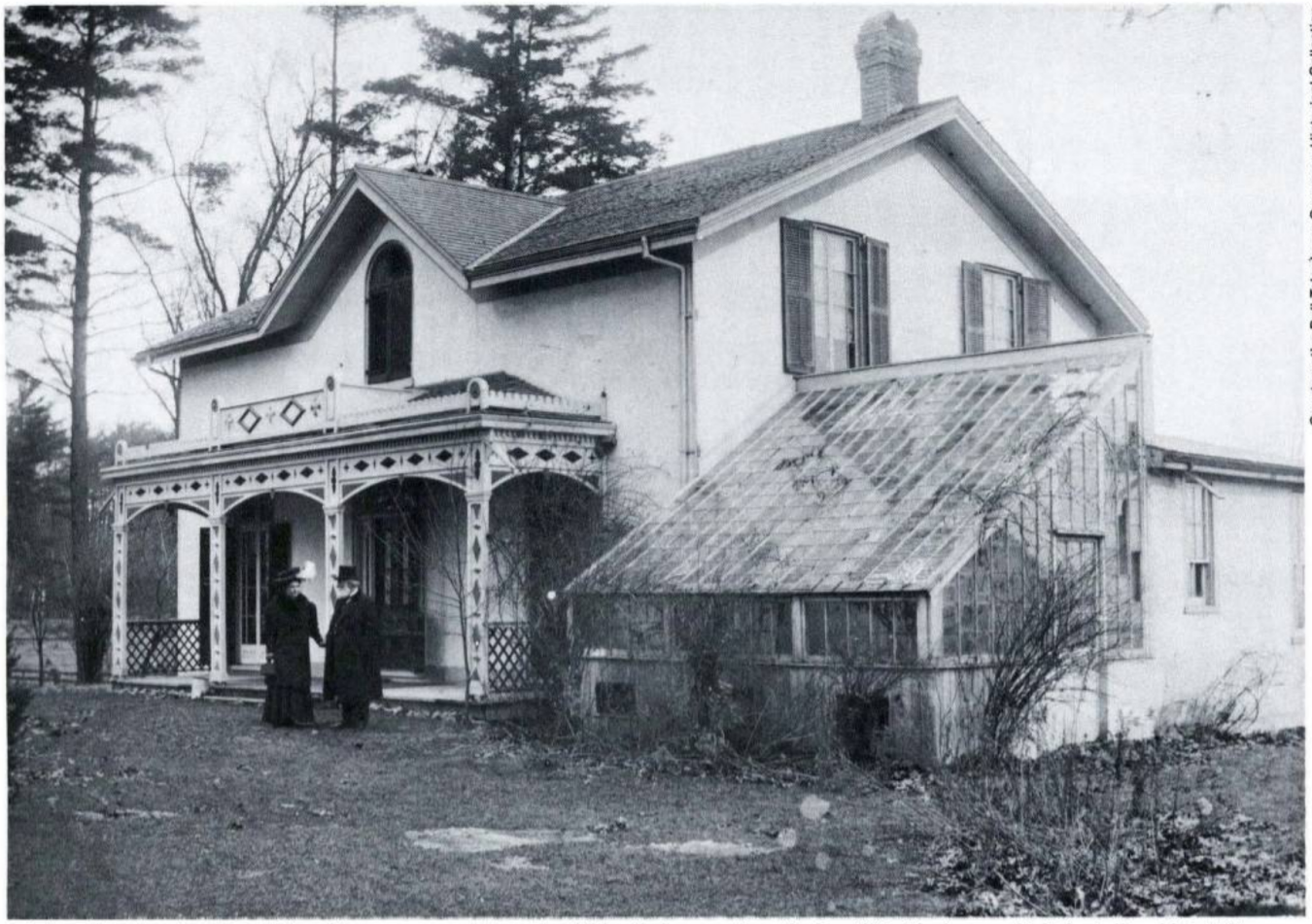
Another result of this prolonged survey was that Bell managed to persuade the U.S. Census Bureau to stop using the term "deaf-mutes" and lumping such people along with the feeble-minded and insane.

Meanwhile the Volta Laboratory was busy on a project to devise a machine which could record and reproduce music, the human voice and other sounds. Thomas Edison had been granted a patent on a device he called a phonograph in February 1878. It was a simple cylinder which was turned by a hand crank. The cylinder was covered with tinfoil on which the recorded sound was embossed by a fixed needle. The devise was imperfect in so many ways that Edison himself regarded it as merely a toy or a curiosity which might earn a few nickels while displayed at public fairs or exhibitions. For one thing, it could record for only about two minutes and the sound, when reproduced, was garbled. The tinfoil was difficult to affix to the cylinder, and was frequently gouged by the needle.

Bell's two associates at the Volta Laboratory worked out so many improvements that their phonograph was practically a new device. In place of the cylinder covered with tinfoil they used a wax disc, and they replaced the fixed needle with a loosely-mounted stylus. They also achieved a steady speed for recording and reproducing by using a wind-up spring in place of Edison's hand crank. They patented their device in May 1886. Before attempting to market it, Bell and his associates suggested that Edison co-operate with them as a partner but he dismissed them as pirates. The matter was solved in 1888 when a Pittsburgh businessman bought both patents and formed the North American Phonograph Company.

Bell as usual, divided the profits from the sale equally with his two associates. He used his share to found the Volta Bureau, which continues to carry out research to aid the deaf.

In 1903, when the Wrights made their celebrated airplane flight at Kittyhawk, Bell was still experimenting with kites, and continued until he achieved a kite capable of carrying a man. The passenger was Lieutenant Thomas Selfridge, an American military officer who had been assigned to observe Bell's experiments. Later in 1908 Selfridge was assigned by the U.S. Army to take part with Orville Wright in a trial flight at Fort Myer, Virginia. The plane crashed, injuring Wright and killing Selfridge, who thus became the first airplane fatality in history.



Courtesy the Bell Telephone Company Historical Collection.

Bell and his daughter Mrs. Gilbert Grosvenor on a visit to the old family home at Brantford in 1906. The house, which the Bells sold in 1881, was acquired by the City of Brantford in 1906 and became a museum in 1926.

The problem with the first experimental planes was the difficulty of maintaining control in the air. Bell's experiments with kites helped him overcome some of those problems and his first successful planes had such devices as movable wing tips, lateral rudders and wing sections with double curvature.

Several successful test flights were carried out by the Bell team in 1908 in Hammondsport, New York, where Glen Curtiss, engine-builder for the team, had his workshop. A bi-plane, powered by an eight-cylinder engine weighing 148 pounds, made five short flights, including one of 1,017 feet at the speed of 37 m.p.h. The most spectacular flight was made by a plane called the *June Bug*. Piloted by Curtiss it travelled 3,420 feet at a speed of 40 m.p.h., winning a prize offered by the *Scientific American* magazine for the first heavier-than-air flight to exceed one kilometre.

In 1909 the team returned to Baddeck where J.A.D. McCurdy made his historic flight in the *Silver Dart*, covering a two-mile figure-eight course, in three minutes. Two days later, Curtiss piloted the same plane, which had undergone a few adjustments, and covered the same course in two-and-a-half minutes. This signalled the end of Bell's aviation team. Curtiss returned to the United States where he formed his own aircraft company and bought out the Bell patents. Bell, meanwhile, turned to another project that grew out of his work with aircraft.

To reduce the possibility of fatal accidents, Bell had attempted to launch his trial aircraft from the Bras d'Or waters only to find that the drag was too great. He now set to work to devise a boat that could avoid most of that tremendous water resistance. The answer was to equip the boat with blades that would operate in a manner similar to the wings of a plane to lift the boat partially out of the water while at high speed.

This was not a new idea. Bell had observed an Italian hydrofoil in action on the Mediterranean. But he made improvements, such as arranging the wing-like blades in a ladder-like series so that the boat lifted gradually out of the water until only the bottom blades remained submerged. He also used aerial propellors, and eventually created a hydrofoil craft that reached a speed of 71 m.p.h., a water-speed record that remained unmatched for a decade.

Items from Bell's notebooks. Top: An 1892 sketch and notes for a "vacuum jacket". Below: A sketch from 1893 showing Bell's idea for a rocket-powered airplane. A note reads "Keep discharge clear of tail".

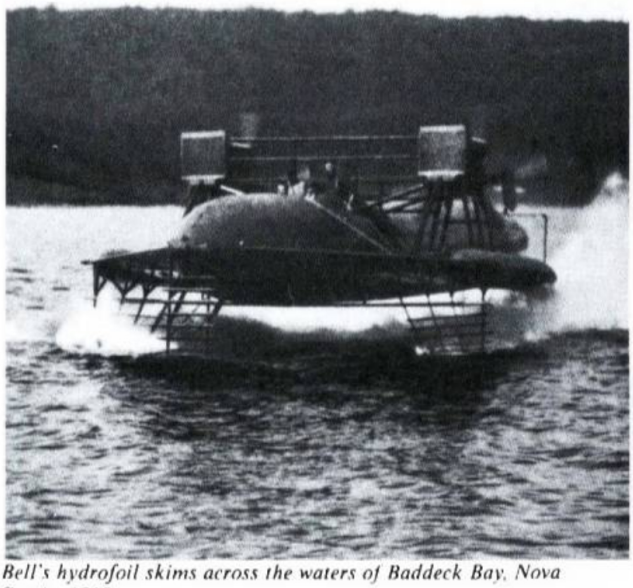
Bell tried to interest the British Admiralty and the U.S. Navy in the hydrofoils. Both showed considerable interest, but no orders were placed, and the world's fastest speed-boat became a museum piece. It may be seen at the Bell Museum which the federal government built at Baddeck after Bell's death. It is a beautiful building in a magnificent setting, within sight of Beinn Bhreagh, which is still used as a summer home by Bell's numerous great-grandchildren and their families.

Bell died on 2 August 1922, at two o'clock in the morning. Mabel was at his side, holding his hand. He had suffered from diabetes which slowed him down during the last ten years of his life. The cause of death was listed as pernicious anaemia. He was buried in a grave blasted out of the rock of the headland where, 37 years earlier, he and Mabel had marvelled at the Bras d'Or scenery and dreamed of Beinn Bhreagh.

Mabel was desolated by his death and wrote in her diary: "It's going to be terribly difficult to live without him." And so it proved. She died exactly five months later, and was laid to rest beside him.

It is difficult to assess Bell's contribution to mankind. Certainly he left the world a vastly different place than it was when he was born. The vast electronic paraphernalia on which our civilization depends owes much to Bell. But he also contributed to other aspects of our lives, not only by his inventions but in many fields in which he threw out ideas and left it to others to work on them. Such was his suggestion about deep-sea sonic sounding, his promotion of the need for air-conditioning, and his demonstration that salt water may be made fresh enough for human consumption.

His years of patient work in developing a breed of sheep that will bear more than the usual one lamb brought him recognition from sheep breeders everywhere. And his contribution to medicine won him honorary doctorates from numerous universities in scores of countries. Among his many incidental achievements is the *National Geographic Magazine*. A great-grandson of Bell continues to preside at the head of the magazine and the society that runs it. At the Washington headquarters of the National Geographic Society there is a Bell Room where a massive accumulation of Bell's journals, letters and other documents are preserved.



Bell's hydrofoil skims across the waters of Baddeck Bay, Nova Scotia, 1919.

Bell will be remembered with gratitude by deaf people around the world, to whom he was a father-figure and a benefactor. Most of them shared in the heart-felt cry of grief voiced by Helen Keller who, on hearing of Bell's death, cried: "I am hungry for the touch of his dear hand." ♦

Marcus Van Steen is the author, among other works, of a celebrated life of Pauline Johnson. He lives at Brantford, Ontario.

Whatever Happened to Confederation?

Read any good books about Confederation lately? Unless you have been going back to the library shelf, you probably haven't. Historians don't write about Confederation any more.

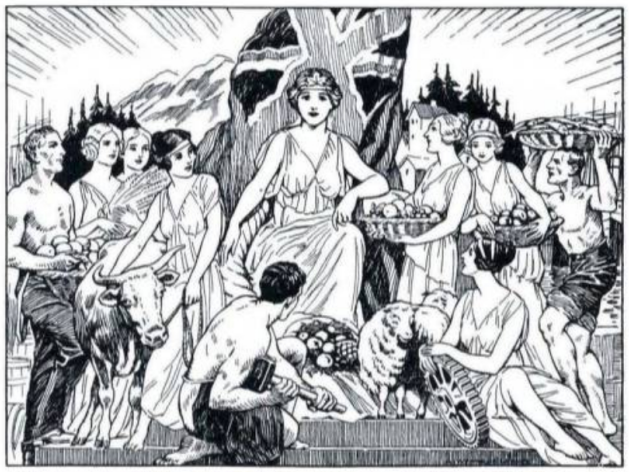
July 1st marks the 125th anniversary of the achievement of the Canadian Confederation in 1867. As in Centennial Year, the federal government is underwriting celebrations throughout the country. With the anniversary in front of us and with a full-scale national crisis roaring about our ears, we might expect historians and thinkers to be wrangling about the making of the constitution that created the nation in the 1860s.

Instead, the nineteenth-century constitutional debates — which produced the framework which is under debate today — receive little attention from historians in the 1990s. Debate on a new constitution is everywhere (and historians have taken no small share in the discussion). But our contemporary constitutional arguments are remarkably present-minded — not to say amnesiac. The most recent proposal of the Government of Canada, for instance, simply presumes that any century-old document must be obsolete and irrelevant. "Canada's basic constitutional text was written in the nineteenth century," it declares, "and the challenge before us is to update it for the twenty-first century."

Those dead white males, the Fathers of Confederation, have an image problem. If politicians refer to them, they tend to be sarcastic and dismissive. "In Charlottetown," said Brian Mulroney in his "roll-the-dice" interview in 1990, "the boys spent a long time in places other than the library. There was no public participation." During the Meech Lake crisis, one of the Western premiers said the Fathers of Confederation were well-meaning men for their times, but they didn't know much about telecommunication or the environment.

Historians seem no more enthusiastic. No substantial book on Confederation had appeared since Centennial fervour abated in the 1960s. Today, scholars of the nineteenth century are likely to emphasize, not the constitutional ideas of the original constitution-makers, but their status as a narrow political elite with little concern for any minority except the rich. It is a sign, perhaps, of how much Canadian society has evolved in 125 years that the way that the Confederation process of the 1860s commands so little interest — even from historians.

Some historians, however, deny that the 1860s have become irrelevant. According to Ramsay Cook, "We would have a better debate about the constitution today if there was a fuller understanding of why we had the kind of constitution we had in the nineteenth century and why it has evolved in the way it has." When we fail to pay attention to the 1860s, Cook suggests, "there's a kind of Gresham's Law — bad history takes up the place that good history might otherwise assume." He has no trouble finding examples of bad history in the current constitutional debate.



Confederation was not always so minor a topic on the historical agenda. In the 1960s, as the centennial of Confederation approached, every important Canadian historian seemed to have a book on Confederation in progress. (In a way, perhaps, it was the way to become an important Canadian historian.) Dominating the scene was Donald Creighton, who almost single-handedly had shifted historical attention from reformers pursuing responsible government to Tory nation-builders. In 1964, Creighton followed up his masterful two-volume life of John A. Macdonald with *The Road to Confederation*, a vigorous, readable, highly opinionated

narrative of the making of Confederation between 1864 and 1867.

Creighton scarcely had the field to himself. The year 1964 also saw the publication of W. L. Morton's *The Critical Years*, a careful, closely reasoned analysis of nation-building from 1857 to 1873. Already, Peter Waite had published *The Life and Times of Confederation*, a lively account based on the newspapers of the day. Maurice Careless had recently completed his biography of

D'Arcy McGee preaches union.

Macdonald's great rival George Brown, and Frank Underhill, Ramsay Cook, and several other historians published substantial studies during the 1960s.

After Centennial Year, the flood of histories of Confederation dried up. Something more than post-Expo exhaustion was at work. By the late 1960s, academic historians were shifting decisively away from political/constitutional history, which began to seem traditional, dull, and superficial. For most, what captured their attention was social history, but what was really in progress was specialization. The growing corps of professional historians began defining small, precise niches for scholars to fill.

In recent decades, it has been a fundamental premise of social historians that the headline news of politics is not the real story of the past. Politics, they assert, cannot be understood without attention to the shape of society — the "social and economic structures" that underlie the headline events. Since high politics are mostly the preserve of the established and powerful, social historians also try to study those who were powerless in their own time and mostly invisible in histories of national politics. Women, minorities, immigrants, the working class, and voices of regional cultures began to claim their share of historical attention.

As a result of all these specialized studies, vastly more is known about virtually all aspects of Canada's nineteenth century. And the new writing driven by new questions sometimes sheds light on political history in surprising ways. Five years ago, Professor Suzanne Zeller published her doctoral dissertation on a typically specialized subject, nineteenth-century Canadian science. In it, however, she shows that the naturalists, botanists, and geologists who went out to inventory the resources of British North America were also creating the idea of a transcontinental nation. Like Adam and Eve in the garden, they claimed dominion over the land just by giving it names. Appropriately, Zeller entitled her book *Inventing Canada*.

But straightforward political history that might incorporate the new ideas has been scarce in the last twenty years. Even more rare has been scholarly history intended for non-specialist readers. The specialized research of recent academic history has mostly been written in abstract, technical prose and published by scholarly presses with tiny circulations.

When professors retreat to their own impenetrable world, we might expect popular writers and journalists to take over discussion of the history of nation-building. The last couple of decades have been boom times for popular writing about Canada. There may still be people who think Canadian history is dull, but they must never go into bookstores, where books about Canadian history dominate the best-seller lists nearly every season. Yet popular historians have mostly avoided Confederation too.

The mission of popular Canadian history in recent decades has been to Make History Interesting, usually by emphasizing colour and drama and by avoiding serious ideas. Political history, particularly when it is about the mutton-chop-and-top-hat brigade, risks dullness, and few popular historians have been willing to run that risk. The parliamentary scenes of the Pacific Scandal were among the best material in Pierre Berton's railway books (and, with William Hutt playing John A., of the television series based on them), but they have not often been imitated. We may know John A. Macdonald was a drunk, but his political ideals have almost vanished from sight.

Last fall Professor Michael Bliss of the University of Toronto delivered his university's annual Donald Creighton Lecture. Bliss, once a student in Creighton's seminar in political history, issued a challenge that Creighton himself might have approved.

Bliss declared that his own generation of historians had taken a

Confederation rally, Toronto, 1864.

wrong turning when it veered away from political history. Comparing the scholarly rush into specialization to "privatizing the mind," he lamented that no one has been clarifying the great public issues of Canadian history, and he did not spare himself. "We were business historians, labour historians, Western, Maritime, Ontario, Quebec

historians, intellectual historians, historians of women, education, law, cities, culture, crime, smallpox — historians of anything but Canada," he said. "We turned away from those tired old themes of Donald Creighton's courses just as the understanding of them became a *sine qua non* of intelligent citizenship."

them was Gregory Kealey of Newfoundland's Memorial University, a leading exponent of the new social history. Kealey thinks that killing off the old political history is one of his generation's great achievements. "Until recently I would have said we had made it impossible to write about Canada in the old political/constitutional kind of history. I

the working class, and Bliss, the most articulate neo-conservative in the historical community, may not be as far apart as they seem. Kealey hopes to see the creation of a big, comprehensive social history of Canada, one that addresses the great public issues for students and general audiences. Bliss, for his part, agrees there is no going back to the

The Fathers at Quebec, 1864, after the painting by Robert Harris.

One result, in Bliss's view, was "a pathetically low level of discussion" of the Meech Lake Accord's provisions in the context of Canada's constitutional history. For Bliss, the accord and the crisis produced by its rejection prove the urgent need for renewed study of the Canadian political and constitutional tradition. Noting how difficult it has been to create a "Canada clause" summarizing shared Canadian values in the constitution, Bliss declared, "We have trouble with that clause because we do not know who we are as Canadians, and our historians have not been much help recently." It is time, he said, for historians to take up the responsibility they abdicated.

Some historians who were in Bliss's audience last fall were not inspired by his challenge. One of

thought we had built a consensus on the necessity to understand the social history of the country." To Kealey, Bliss had proposed a backward step "to that old style of history as high politics that was practised in the nineteenth century — and much of the twentieth for that matter!"

Kealey does not deny the political crisis or the responsibility of scholars to respond to it. "But you know," he says, "if historians are going to contribute to this post-Meech situation, the national crisis, we can't go back to the old history. Precisely what it failed to understand were the forces that underlay the problem of the nation-state. A new contribution has to be built on the insights of class, gender, ethnicity, and region. I don't see how the clock can be turned back."

Kealey, the left-wing historian of

"limited, restricted" sense of Canada that once characterized historical writing. He imagines a Canadian history that will integrate into historical consciousness all those Canadians who were excluded from the old history. That could be, he predicts, "the finest achievement of our history writing since the 1950s".

While Kealey and Bliss both envisage a history of Canada informed by the new knowledge and attentive to public understanding, it remains to be seen who would write it, whether it is possible — and whether anyone would recognize it if it appeared. But in the meantime, has the history of Confederation itself anything to teach us?

Certainly the masterworks of the 1960s have not answered all the questions. To Ged Martin, a British student of Canadian history and

director of the Centre of Canadian Studies at the University of Edinburgh in Scotland, the 1860s generation were patriotic, confident English-Canadians who "wanted to see Confederation as the inevitable, the necessary, the *ideal* solution to the questions of the future of the northern half of the continent." Even in Creighton's own day, it was clear that his scorn for anyone who did not share John A. Macdonald's vision left many questions unanswered.

A new approach to Confederation would surely be more attentive to those excluded from constitution-making in the 1860s. "These men were not democrats," says Phillip Buckner of the University of New Brunswick about the Fathers of Confederation. "They did not believe in universal suffrage. They believed in a property franchise and they worried about democracy." Recently Buckner has been redirecting attention to the anti-confederates of the 1860s, not to declare them correct, but to recognize that they had valid concerns too often dismissed by triumphal history.

There may be other ways that the history of constitution-making in the 1860s could enlighten our present discussion. Few issues have perplexed recent constitutional debates more than "process". The government of Quebec found the 1982 amendment process illegitimate and has refused to accept the results. On the other hand, many Canadians were offended by the "eleven-men-in-a-room-making-deals" that characterized Meech Lake.

"Process" was barely an issue in the 1960s, and so it hardly appears in the 1960s histories of Confederation. Yet there could be intriguing lessons to learn from the 1860s. The Charlottetown conference of 1864, for instance, where Confederation got started, was originally intended as a conclave of Maritime premiers (and lieutenant-governors) only, with the results to be rubber-stamped by the legislatures afterwards — in effect, a kind of nineteenth-century Meech Lake. But in 1864 the premiers refused to go to Charlottetown without the leaders of the opposition.

As a result, all the constitutional conferences that led to Confederation in 1867 included bipartisan or multi-party delegations from each province. When the terms of the British North America Act were worked out at Quebec City in 1864, it took no less than 33 delegates to represent the small political class of just five colonies with only 3.5 million people. D'Arcy McGee, who was there, called the 1860s conferences an "extraordinary armistice of party warfare" — and it worked. In 1987, in a nation of 26 million, one man proposed to speak for each province — only to see their deal unravel once opposition parties who had been excluded began to take power.

The constitution-makers of the 1860s excluded many Canadians from political life — no women and not all men could vote — but for those within the circle, they understood that constitutions required the broadest possible political consensus. In the 1980s, we reversed that: we let everyone vote, but we kept most of our elected representatives out of the constitutional discussion.

Pretending that the First Ministers alone can represent all of us has not worked. Did the Fathers of Confederation know something we don't? And if they did, could we learn about it? It does begin to seem that re-imagining Confederation might provide new ways of seeing the issues of the 1990s.

Ged Martin emphasizes that Canada was already a very diverse country in 1867. "How do you stitch those pieces together?" he asks. "That's the fundamental question. And of course that question has got to be asked and answered and re-asked and re-answered at twenty-, thirty-year intervals throughout Canada's history." ♦

Michael Bliss's Creighton Lecture, "Privatizing the Mind: The Sundering of Canadian History, the Sundering of Canada," is in the "Journal of Canadian Studies," Winter 1991/92. Some of the other quotations in this essay were originally recorded for Christopher Moore's documentary series "Historians on Confederation," which was broadcast on the CBC Radio program "Ideas" in November 1991. The illustrations with this article are by A. Wynne-Clark and were drawn for "Simpson's Confederation Jubilee Series, 1867-1927", published by the Robert Simpson Company, 1927.

SEND a

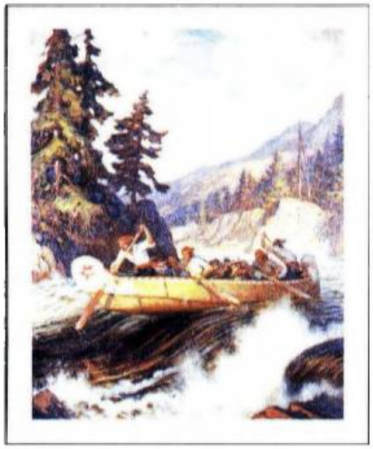
GIFT SUBSCRIPTION

to a FRIEND . . .

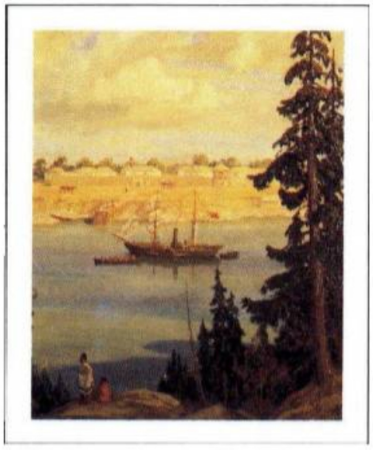
It will be greatly appreciated

SUBSCRIBE TODAY!

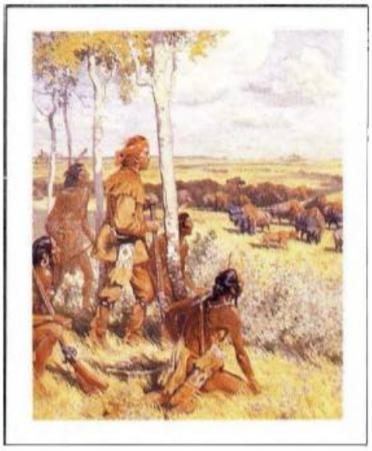
Historic Paintings by popular demand



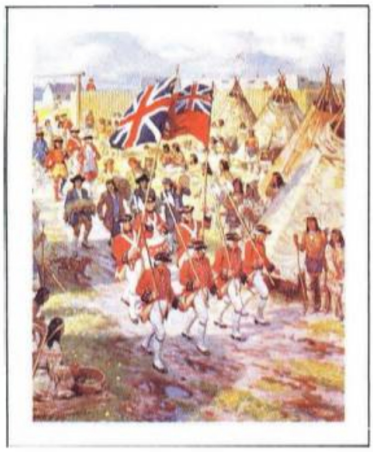
A. *Chief Trader Archibald McDonald Descending the Fraser*
By A. Sherriff Scott.



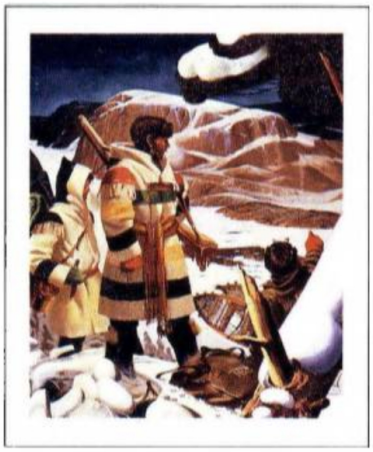
B. *S.S. "Beaver" Off Fort Victoria*
By A. Sherriff Scott.



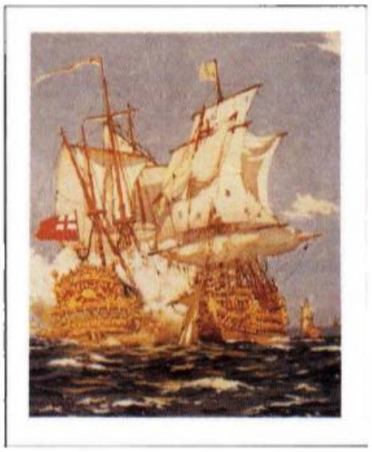
C. *Kelsey Sees the Buffalo*
By C.W. Jefferys.



D. *Trading Ceremony at York Factory*
By A. Sherriff Scott.



E. *R.M. Ballantyne and Chief Trader George Barnston at Tadoussac, 1846*
By Charles Comfort.



F. *Battle in the Bay, 1697*
By Norman Wilkinson.

Over the years the Hudson's Bay Company has commissioned distinguished Canadian painters to create works depicting important events in the long history of the Company. Among the most popular works in the HBC collection are those pictured above by C.W. Jefferys, A. Sherriff Scott, Norman Wilkinson and Charles Comfort.

The Beaver is now offering quality reproductions of these works. These four-colour prints are sized 12½" x 16½", printed on fine stock and are suitable for framing. They are priced at **$11.98 each.**

(Manitoba residents please add 7% sales tax.)

To order send cheque or money order payable to *THE BEAVER*, 450 Portage Avenue, Winnipeg, Manitoba, R3C 0E7
(Canadian Orders add 7% Goods and Services Tax — see tax table page 60)

A Question of Leadership

By Robert Saunders

THE CANADIAN ARMY AND THE NORMANDY CAMPAIGN
A Study of Failure in High Command
By John A. English. Praeger Publishers, New York, 1991. 376 pp., illus. $47.95.

Many writers have contended that the slaughter on the Somme in 1916 was needless and Haig and the "chateau generals" have been condemned for their stubborn stupidity and blind incompetence. Others, led by the military historian John Terraine, have sprung to Haig's defence and the controversy continues to this day.

We have always been told, though, that the higher command was of a superior quality in World War II, and that the Canadian troops who invaded France in the summer of 1944 were better trained and better led than were their fathers in that earlier war.

John A. English challenges this complacent and, he believes, dangerous assumption. Although in 1944 Canadian troops were fighting under Canadian rather than British commanders, there was incompetent leadership once again and, once again, lives were needlessly wasted as a result.

There is no disputing the fact that Canadian casualties were high in the Normandy campaign. By the time the Falaise Gap was closed at the end of August 1944, Canadian losses totalled 18,444 of which 5,021 were fatal. Some regiments were particularly badly hit. The Canadian Scottish Regiment, for instance, was one of the D-Day assault batallions with a total strength of some 800 officers and men. By 21 August it had suffered 627 casualties, of which 198 were killed in action.

The question is whether these casualties can be blamed primarily on poor leadership, as English contends, or whether they were, rather, due to the very nature of the campaign itself.

It should be made clear at the outset of any such discussion that

General McNaughton

The Canadian Army and the Normandy Campaign cannot be dismissed as yet another exercise in "establishment bashing". English's credentials and the effort and research he has put into his book are equally impressive. He is a Research Associate with the International Institute for Strategic Studies and an officer in the Princess Patricia's Canadian Light Infantry. He is the author of *On Infantry*, a book which received wide critical acclaim a decade ago, and he has written on military subjects for such periodicals as *Jane's Military Review, Canadian Defence Quarterly* and *Military Affairs*.

In *The Canadian Army and the Normandy Campaign* English has made extensive use of the papers of General A.G.L. McNaughton and General H.D.G. Crerar in the National Archives of Canada and this has enabled him to break new ground on the subject of staff and tactical training in the Canadian army going back to the interwar years. The Crerar papers were particularly valuable in that they contained Field Marshal Sir Bernard Montgomery's personal correspondence with Crerar dealing with the state of Canadian training three years into the war.

English's research in the massive files of the Department of National Defence included not only a careful study of the war diaries and their appendices but also a thorough examination of the operation logs maintained at various headquarters during the Normandy campaign. Colonel C.P. Stacey, the pioneer historian of the Canadian army's role in World War II, used to say that the best historical evidence was evidence recorded *at the time*. English argues that, for this reason, the operations log, a minute-by-minute record of all information and orders sent out and received by headquarters, is a superior source of information to war diaries which were often written days after the events occurred. The war diaries, in other words, are written for historical purposes whereas the operation log is an instrument for fighting a battle.

The log is also preferable, English says, because it is impersonal and, though checked, is rarely rewritten. War diaries, on the other hand, are subject to approval and possible alterations by those in command.

As for regimental histories, English drily observes that the quality of these tends to vary with authorship and that "even when written by trained historians, little is generally said to the detriment of regimental performance".

The result of all this research is

a book severely critical of the military establishment. The gravamen of English's charge is that whereas Canada had a superbly trained army by the end of World War I, it deliberately allowed that army to deteriorate during the interwar years and that, as a result, when war came in 1939 Canada's armed forces were woefully unprepared.

He goes on to argue that since most Canadian formations were not in combat until the summer of 1944, there was plenty of time for more realistic training, but Canadian senior officers in England failed to make use of this opportunity. Caught up in routine, they seemed unable to adjust to the requirements of a new kind of warfare.

The consequences of this inadequate or misdirected training, English says, was that when Canadian troops finally faced the enemy they met severe reverses and appallingly high casualties. He quotes General Charles Foulkes, former commander of the 2nd Division, as saying: "When we went into battle at Falaise and Caen we found that when we bumped into battle-experienced German troops we were no match for them. We would not have been successful had it not been for air and artillery support."

The strictures levelled against the training received by Canadian troops are too well documented by English to be easy to refute. In his analysis of the Normandy campaign itself, however, it can be argued that he takes too little account of the extremely formidable fighting qualities and the desperate determination of the enemies the Canadians were battling. English is, of course, aware of this argument but he dismisses what he calls "the myth of German fanaticism" as too simple an explanation for Canadian setbacks.

However, as the military historian Ronald Lewin, who himself fought in the ranks of the British Eighth army in North Africa and Europe, has written: "No one who has not faced a German panzer army fighting for its life has the right to criticize those who have done so and apparently failed: at least not without very careful consideration. [Field-Marshal William] Slim called the Japanese 'the most formidable fighting insects in the world': the Germans in Normandy with their good tanks, their lethal 88 mm guns, their skilful techniques and high military qualities were even more formidable, particularly when struggling for survivial."

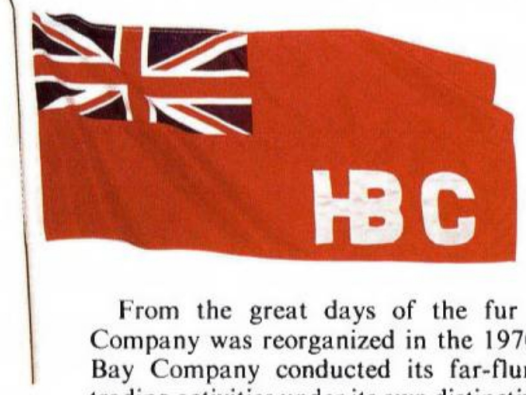
It is all very well to say, as English does, that the victories of the Red army proved that the Germans were far from invincible and that "while Canadian land forces ground their way toward Falaise, Russian troops swept to the banks of the Vistula, covering some 450 miles in four weeks". The fact is that the Germans in Normandy were more heavily concentrated and defending on a narrower front than they were in Eastern Europe.

Furthermore, Montgomery's battle plan made it certain that the Canadians would face heavy fighting. By exerting strong pressure on the enemy in the Caen area, Montgomery deliberately planned to attract the bulk of Field Marshal Erwin Rommel's panzer and infantry divisions to the British-Canadian front. The more enemy divisions drawn to the eastern part of the front, the fewer would be opposing the American forces on the western side. This, in turn, would ease the Americans' drive across the base of the Cotentin Peninsula and then north to seize Cherbourg. When this was done, the right wing or "gate" of the Allied forces would begin to swing and break out of Normandy into central France. Montgomery's plan achieved its aim but at a heavy cost in British and Canadian lives.

The counter-strategy employed by the Germans further guaranteed that the fighting would be particularly savage. The baleful influence of Hitler can be felt here for it was at this point that he intervened and committed yet another of his notorious military blunders.

By 12 June, six days after D-Day, the Allied front in Normandy was 50 miles long and 12 miles wide. Field Marshal Gerd von Rundstedt,

Flag of the Adventurers



From the great days of the fur trade until the Company was reorganized in the 1970s, the Hudson's Bay Company conducted its far-flung business and trading activities under its own distinctive Company flag, the familiar red ensign with the HBC initials in the fly. Now this historic flag is for sale to collectors and fur trade history enthusiasts who read *The Beaver*. This fine 3 ft. x 6 ft. flag, suitable for display, is made of weather-resistant nylon.

$49.98 each, postage paid.

To order send cheque or money order payable to *The Beaver*, 450 Portage Ave., Winnipeg, Manitoba, R3C 0E7

(All Canadian orders please add 7% Goods and Services Tax)

the German commander, realizing the invaders could not now be driven back into the sea, made the sensible strategic decision that a retreat to the Seine was necessary. Hitler, however, categorically refused him permission to withdraw his troops. The German army, Hitler declared, must hold on and fight for every inch of ground in Normandy.

This meant that the German line in Normandy would seldom bend. It was, however, brittle and, when enough force was applied, it eventually broke. Although ten months of fighting still lay ahead after this, the German collapse in Normandy signalled that the battle of France was effectively lost and the fate of Germany was sealed.

In the short term, though, Hitler's decision to cling to Normandy was a disaster for the Canadians who, as a consequence, faced stiffer resistance and heavier casualties than would otherwise have been the case.

The Canadian Army and the Normandy Campaign is a serious indictment of Canada's military leadership in World War II and, as such, it merits careful study by those responsible for the training of our armed forces today. Beneath English's scholarly prose there is a sense of anger kept under tight control. Nevertheless, the abiding impression left by this book is not one of dismay or of cynical disillusionment over the revelation of bungling in high places. It is, rather, a feeling of humility and wonder when contemplating the steadfast bravery and dogged devotion to duty of the common soldier.

We can recite the names of Second Ypres, Passchendaele and Vimy Ridge from the 1914 war. We should remember with equal pride and gratitude names such as Carpiquet and Caen, Bourguebus Ridge, Verrieres Ridge, Rocquancourt and the other terrible battles of Normandy in those hot summer days 48 years ago.

Robert Saunders of Winnipeg is a frequent contributor to "The Beaver" on military affairs.

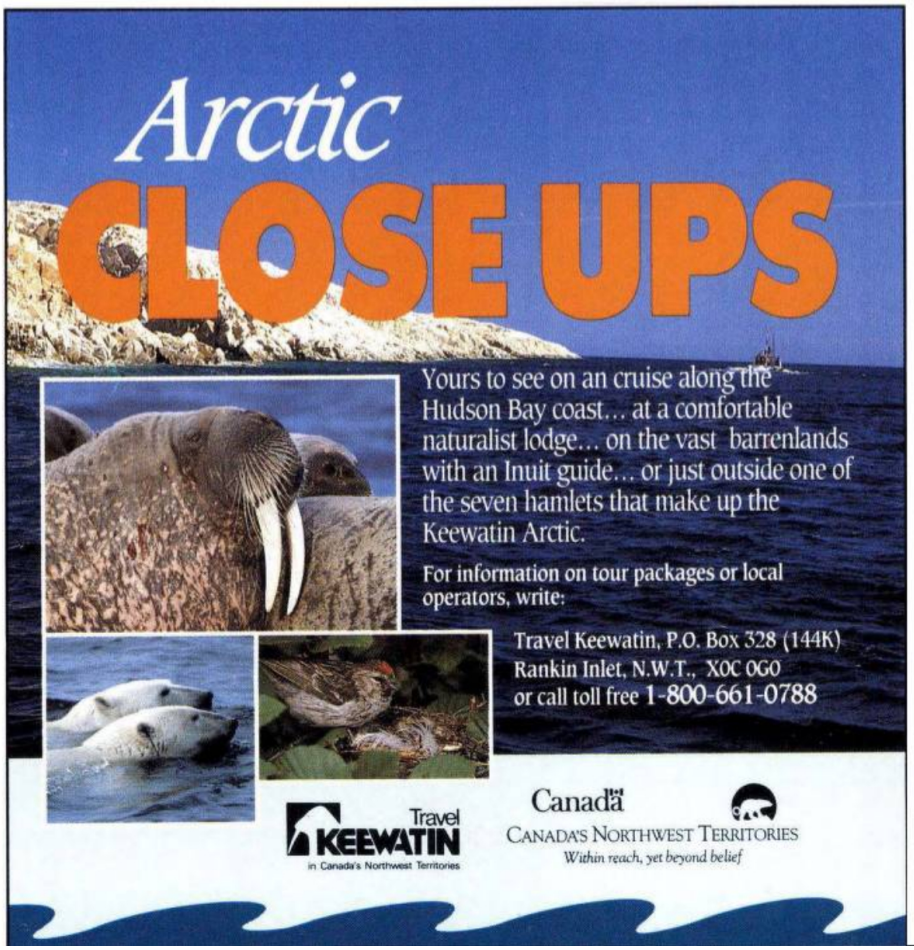
Out-of-Print

Canadian Books, Pamphlets and Periodicals

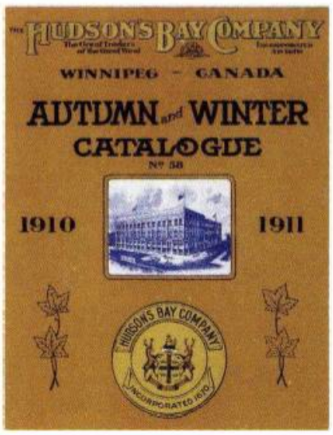
History ● Biography ● Art
Literature ● Exploration etc.

Catalogues Free on Request

Huronia-Canadiana Books
(Helen & John Wray)
705-435-7255
Box 685, Alliston, Ontario L0M 1A0



- The 70th anniversary reprint of the first issue of ***The Beaver,*** **October 1920. $6.98 each.**



- ***HBC Catalogue, Autumn and Winter 1910-1911.*** A nostalgic look into the lives of our grandparents. A facsimile of the original edition. **$15.98 each.**

For ordering information see advertisement page 55

From Wapella to Westmount

By Abraham Arnold

MR. SAM
The Life and Times of
Samuel Bronfman

By Michael R. Marrus. Viking/ Penguin, Toronto, 1991. 551 pp., illus. $35.00.

Michael Marrus begins his book by placing the Bronfman family in the context of those hardy — sometimes foolhardy — Jewish pioneers who tried to become homesteaders in the West in the 1880s. Ekiel Bronfman and sons were among a small number of Jews who moved from the farm to greater opportunity in the city. The Bronfmans were exceptional in ascending to the wealthy heights of Montreal's Westmount by the 1920s.

Samuel Bronfman was the fourth child and third son of Yechiel (Ekiel) and Mindel who rose to become the leader of the family enterprise and to create one of the most successful Canadian business empires. "Mr. Sam" has indeed been set "in his historical context," as the author asserts. And even if he really was born in Europe just before the family departed for Canada, Sam Bronfman was entirely a product of this country and of the Jewish community in Canada where his father set a leadership example.

There has been much discussion about why and how this book came to be commissioned by the Bronfman family. The author, one of Canada's outstanding academic historians, explains candidly in his preface how he entered into the project. He states that he had "complete independence in the research and writing of the book." Before undertaking the Bronfman biography, Marrus specialized in European Jewish history.

Marrus traces the European origins of the Bronfman family insofar as possible. More important, he gives a correct reading of the historical circumstances in which the Jews of eastern Europe began to emigrate to Canada in large numbers in the 1880s.

The trials and tribulations of the Bronfman's early years in Wapella, Saskatchewan, and Brandon, Manitoba, were not unlike those of other Jewish families. While some Jews came to Wapella with the main goal of becoming farmers, Yechiel Bronfman was among those who, while willing to take up land, were determined to follow any occupation leading to a good living. The Bronfmans exemplified the quality

Samuel Bronfman

of mobility which, apart from religion, often differentiated the Jews from immigrants of other backgrounds.

Judaism was also central to Bronfman senior's motivation and, as Marrus records, he brought a Hebrew teacher with him from Russia. In 1892, when Brandon lacked a *minyan*, a prayer quorum, the Bronfmans took the train to Winnipeg for the High Holy Days, leaving their animals in the care of neighbours. Ekiel became a leader in the original Rosh Pina Congregation, Winnipeg's second synagogue, even though the family did not move into the city until 1906. He also helped to establish the Brandon synagogue. Ekiel thus set for his family the example of Jewish charity and community involvement, along with the pursuit of success in business.

Moving on to Sam's story, Marrus explains his relationship with his siblings and gives a fascinating account of his rise to leadership and power in the family enterprise, and in the Jewish community. Marrus' rendition of Samuel Bronfman, the family man, and of "Mr. Sam" the business and community leader is more comprehensive and a truer exposition of his personality than that presented by Peter C. Newman in *The Bronfman Dynasty*.

There are one or two minor errors in *Mr. Sam* which in no way detract from the excellence of Marrus' work. For example, Alexander Klenman is named as one of the "leading figures" at the Wapella colony. The founder of the colony was Abraham Klenman. Alexander was his son.

Marrus gives an enlightening explanation of the inner-politics of the Jewish community and how Sam Bronfman rose to a leadership role. In 1931 he became co-president of the Jewish Immigrant Aid Society. Then early in 1939, as Hitler Nazism was spreading in Europe, he became the head of the Canadian Jewish Committee for Refugees. A few weeks later he was elected president of the Canadian Jewish Congress.

As Congress president Bronfman called for unity and tried to get the diverse elements of the Jewish community to rise above their ideological differences. Moreover, in August 1939 he addressed a Western region meeting of Congress in Calgary where "he sounded a particularly patriotic note while ignoring the burning Jewish concerns of the

hour". There was an "apologetic tone" to Bronfman's approach, Marrus states, which was "common . . . among the assimilated elite with whom he had been largely associated". This may have been appreciated in the community at large, but there were many naysayers among Zionist and socialist elements of the Jewish community, including some who had supported him for Congress president.

Sam Bronfman was a strong supporter of Britain but this did not sit well with many Jews at a time when Britain had restricted Jewish immigration to Palestine. Some groups also questioned his quiet approach on the urgent need to seek admittance of Jewish refugees to Canada in the era of "none is too many". But there was no one to challenge Bronfman's leadership. As Marrus states, the Congress had found "a leader who intended change, who would respect the diversity of a heavily immigrant community, but who in the end would not be bound by the Jews he was supposed to lead".

Through the war years, and in the post-war decades, the Jewish community, by and large, rallied to Bronfman's leadership. In winning this support he had, by 1940, two outstanding Jewish advisers, Saul Hayes, who became executive director and later executive vice-president of Canadian Jewish Congress, and the writer A. M. Klein, who became Bronfman's speechwriter. Klein appears to have suffered emotionally from his relationship with the business tycoon. Hayes, the pragmatist, rose above the domineering Bronfman and was instrumental in shaping the latter's Jewish leadership role.

Marrus makes it clear that even though Bronfman became a leader of the United Palestine Appeal, for example, as early as 1936 and was later a leading supporter of Israel, he was not an ideological Zionist. Guided by Saul Hayes, he carved out a role for the Canadian Jewish Congress which was different from that of the Zionist organization. In fact, Marrus quotes Hayes as saying: "The Canadian Jewish Congress is not, by its constitution, a Zionist organization." And Sam Bronfman saw Israel's role as rescuing "the homeless of our people". Marrus makes clear Mr. Sam's belief that Canadian Jewry had its future in Canada. At the 1949 plenary assembly he told Congress delegates: "Our Canadian Jewish destiny must now engage our efforts more than ever before".

Marrus also discloses that Sam Bronfman had a different view of how Jewish history should be taught, inferring an analogy between Bronfman's approach and that of the famed Jewish historian Salo Baron of Columbia University. According to Marrus, Sam felt "conventional historical accounts . . . spent far too much time on what . . . Baron once called 'The lachrymose view of Jewish history' — with its accent on the persecution, suffering and victimization of Jews."

Regarding Israel's relationship with the Arabs, Bronfman suggested in 1956, before the Sinai campaign, that Israel should develop "some heroic and imaginative plan" for Arab refugee resettlement in exchange for peace treaties with the Arab states. And as late as 1970 he proposed Israeli initiatives for peace via a confidential letter to Prime Minister Golda Meir.

Marrus also discloses the role Mr. Sam played with the World Jewish Congress, through his association with Dr. Nahum Goldman, a leading Jewish world statesman for many years. Apart from the political activity this involved, Marrus relates a story about Sam Bronfman singing Yiddish songs at a World Jewish Congress function at his home in Montreal in May 1970.

Earlier writers on Sam Bronfman have tended to focus almost entirely on how he got into the liquor business, exploiting what appears to be sordid and sensational. Michael Marrus has certainly not "pulled his punches" in writing about Mr. Sam's business career. In fact he has likely brought to light more relevant details than other writers about Bronfman's business affairs. He also presents a more complete picture than others of Sam Bronfman's complex character, of his personal motivations and of his accomplishments and his failings as an industrialist, a family man, a patriotic Canadian and a man devoted to his Jewish heritage.

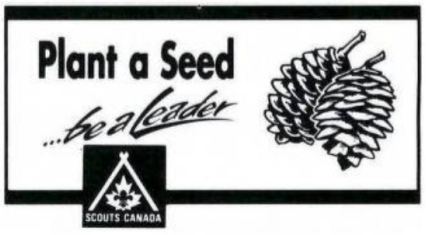
Abraham Arnold of Winnipeg has written extensively on the history of the Jews in Canada.

GST CHART FOR BOOK AND MERCHANDISE ORDERS

(For Canadian Orders Only)

ITEM	PRICE (Each)		GST (7%)		TOTAL
Autumn 1983 Reprint	$ 9.50	+	$0.67	=	$10.17
Back Issues	5.00	+	0.35	=	5.35
Binders	11.98	+	0.84	=	12.82
Flags	49.98	+	3.50	=	53.48
HBC Catalogue, 1910-11	15.98	+	1.12	=	17.10
Historic Prints	11.98	+	0.84	=	12.82
Inuit Prints (per set)	6.98	+	0.49	=	7.47
October 1920 Reprint	6.98	+	0.49	=	7.47
Slipcases	12.98	+	0.91	=	13.89
Ulu Knives	36.98	+	2.59	=	39.57

(Manitoba residents add 7% PST to orders for Flags ($49.98 + $3.50 PST + $3.50 GST = $56.98 TOTAL), Ulu Knives ($36.98 + $2.59 PST + $2.59 GST = $42.16 TOTAL), Historic Prints ($11.98 + $0.84 + $0.84 = $13.66 TOTAL), and Inuit Prints ($6.98 + $0.49 + $0.49 = $7.96 TOTAL).



Death in a City Divided

By Christopher Dafoe

PLAGUE
A Story of Smallpox in Montreal

By Michael Bliss. Harper and Collins, Toronto, 1991. 306 pp., illus. $26.95.

The terrible smallpox epidemic that took almost 6,000 lives in and around Montreal in the year 1885 is a forgotten episode in Canadian history and yet the grim lessons learned and the horrors endured in that long ago disaster could well be of great use to us as we contemplate the devastation of a new plague — AIDS — that is sweeping over the world today.

Defoe's *Journal of the Plague Year*, a fictional account of the great epidemic of bubonic plague that killed thousands in London in the year 1665, was written in the early years of the eighteenth century to alert a complacent population to the approach of a new visitation of the old enemy. Defoe used the devices of fiction to tell a hauntingly realistic and moving story of human folly, courage and suffering. This was fiction based on fact. A great writer had found a way to make the past live again in the minds of his readers.

Most historians are content to write for an exclusively expert audience. Others, wishing to share what they know with a wider readership, are frequently tempted by Defoe's great example. Some have been accused of going too far along the path of fiction, a charge levelled against the historian Simon Schama over his recent book *Dead Certainties*, in which invented dialogue was placed in the mouths of figures from history.

Some other writers are content to build on a foundation of known facts, but elect to give their stories the intensity and dramatic immediacy of fiction. A classic example of this sort of "non-fiction novel" is J.H. Powell's *Bring Out Your Dead: The Great Plague of Yellow Fever in Philadelphia in 1793* published in the late 1940s.

Michael Bliss's *Plague: A Story of Smallpox in Montreal* is very much in the J.H. Powell tradition, splendidly combining the facts of the story in a narrative that has the force of superior fiction. Bliss is a meticulous historian and he has the gifts of the story-teller. Like Defoe, Powell and a few others, he has found a way to make the past live — and at times smell — again.

And what a chilling, moving and heart-breaking story it is.

Men and women of today, who live in a world in which smallpox has been eliminated, can only imagine the bleak horror that the disease aroused in the minds of our great-grandparents. To be sure, the Victorians had good weapons against smallpox. The importance of vaccination was widely known and some were aware that sanitation and the isolation of carriers were essential. Nevertheless, Montreal was curiously unprepared when the visitation came along the railway line from Chicago and although many citizens, French and English, rallied to help, the plague took a terrible toll, especially among the children of the French-Canadian poor.

Why did Montreal suffer so terribly when other cities were able to hold the plague at bay? Bliss shows us that Montreal was a city divided and not only along linguistic lines. It was split by differences in wealth, education and understanding. It was felt in some quarters, for example, that smallpox had been visited upon Montreal by God as punishment for the mixing of the sexes on a toboggan slide during the winter carnival. In the face of superstition, fear, ignorance and social isolation, reason had an uphill climb during that Montreal summer of 1885.

The children of the French-Canadian poor died because their parents were afraid of vaccination, even though the Catholic Church urged them to take advantage of this means of prevention. And so the plague came. Montreal was a house divided and it paid a terrible price for its many solitudes. Reading of that dreadful summer we learn a valuable lesson that the citizens of Montreal learned through agony. Problems can be met and overcome by people of good will working together, facing unpleasant facts with intelligence and compassion and meeting adversity with courage and fortitude.

Michael Bliss tells his cautionary tale well. This is history that is involving and absorbing. As you read, Montreal 1885 is as close as the next page. You are there.

Coming soon in

The Beaver

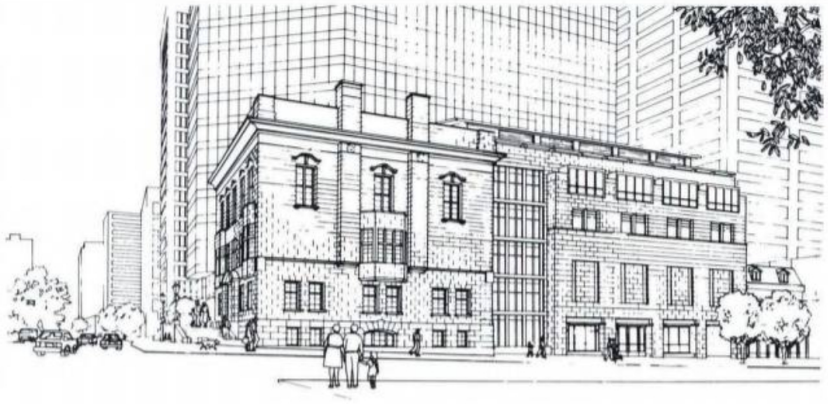
- By Canoe to York Factory
- Homestead Days
- The Guibord Affair

August/September 1992

THE PACKET

Letters, Notes and Opinion

Ian McCulloch: The McCord Renewed



He had eclectic tastes, a profound sense of history, and an unquenchable passion for collecting. But David Ross McCord never saw the final resting place of his extensive Canadiana collections — a small but high-quality institution which has become famous as the McCord Museum of Canadian History.

Wealthy scion of a family of distinguished lawyers and jurists that came to Canada at the end of the eighteenth century, D.R. McCord donated his personal collections to McGill University in 1919. These became the basis of the McCord National Museum.

The museum first opened on the McGill campus in the Joseph House in 1922, a site which soon became too small and delapidated. The museum relocated to its current site, the old McGill Student's Union Building, in 1956, twenty-six years after its founder's death. In 1988, the McCord became a private museum separate from the university and, the following year, closed its doors to the public to launch its most ambitious expansion project ever.

Three years and $30.5 million later, the new-improved edition of the museum re-opened on 9 May 1992. The extension to the stately grey limestone building has remained true to the historic lines of the original building's outer façade, designed by turn-of-the-century architect Percy Nobbs (1875-1964). Inside, however, the museum now boasts two-and-a-half times more floor space than the original building.

Equipped with state-of-the-art installations, the McCord now offers larger viewing galleries, classrooms and workshops, a documentation centre, a library, a reading room, an atrium, a boutique and a tea room.

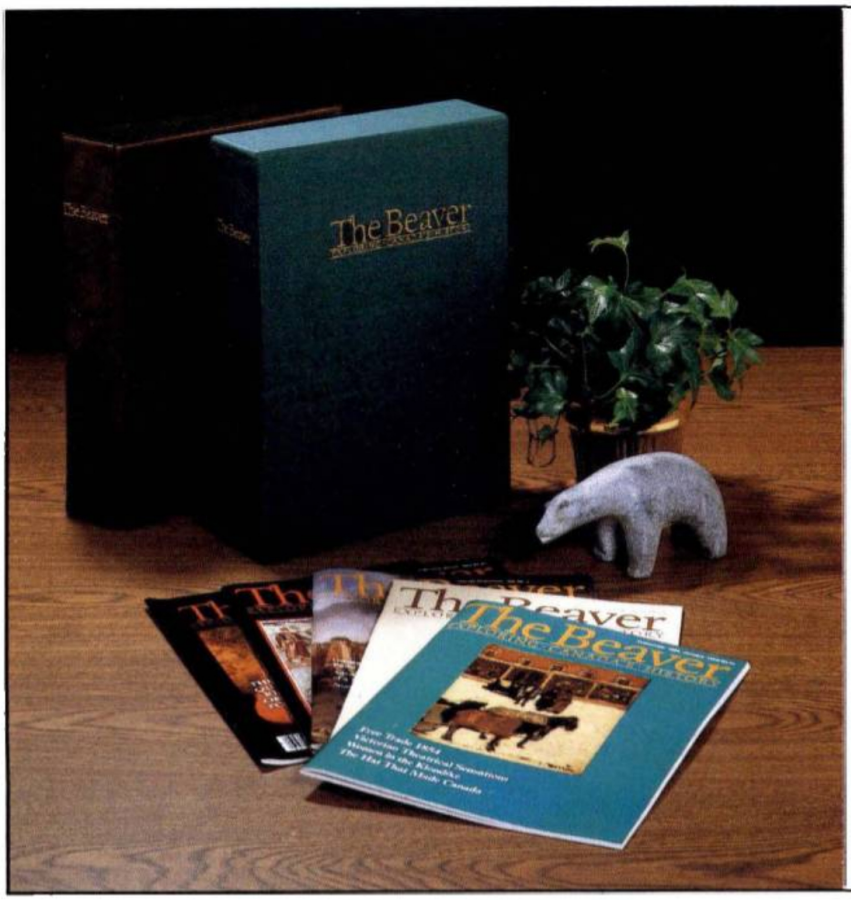
To coincide with Montreal's 350th anniversary, several exhibitions highlighting the museum's own collections are on view. Appropriately, one honours the founder, entitled *The McCord Family: A Passionate Vision*. Others include *Mont Royal-Ville Marie: Early Plans and Views of Montreal*; *Turning Point: Quebec, 1990*, and *Form and Fashion: Nineteenth-Century Montreal Dress*.

The McCord Museum has seven major collections, including the largest collection of ethnological artifacts in Quebec and the third most important of its kind in Canada. These holdings represent the material culture of First Nations from across Canada. There is also the exceptional Paintings, Prints and Drawings collection (second only to the National Archives of Canada) documenting life in eastern Canada in the eighteenth and nineteenth centuries. Another important collection is the internationally acclaimed Notman Photograph Collection, a holding of over 400,000 photographs taken in the Notman studios over 78 years.

"We hope our collections will become much more accessible to the public as well as to students and scholars for the purposes of research," says Marie-Clair Morin, McCord's Director of Development and Communications. "Our educational programs for schoolchildren and seniors will be expanded throughout the community to a degree never before possible."

The new McCord is a "must-see" for visitors to Montreal who wish to find out more about the city's history. In stopping by, however, they will discover much more than local colour, for in the words of the founder, the museum has a remarkable collection "illustrative of the history, art and social life of Canada."

Major Ian McCulloch is serving in Quebec with the Royal Canadian Regiment.

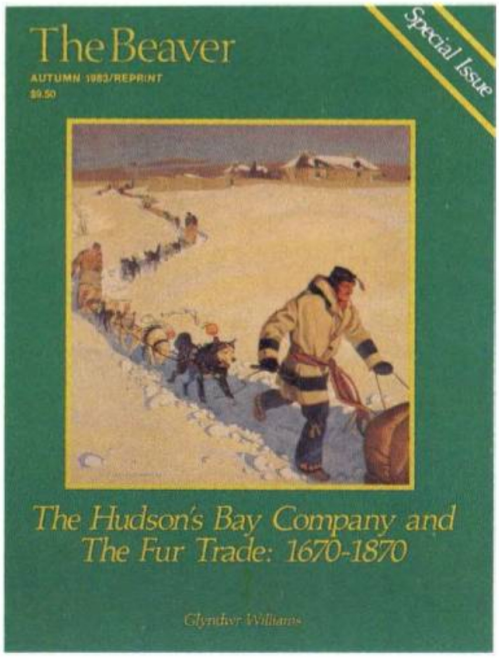


Preserve our History

Protect your back issues of *The Beaver* in our handsome brown **Beaver Binder**. Each sturdy vinyl binder holds six to eight issues and is priced at $11.98, postage paid.

Something new! The **Beaver Slipcase,** covered in attractive green fabric, holds 12 issues and is available at $12.98, postage paid. Both binder and slipcase are embossed with elegant gold lettering and fit current and slightly larger back issues of *The Beaver.*

Send a cheque or money order to Beaver Binders, c/o *The Beaver,* 450 Portage Avenue, Winnipeg, MB R3C 0E7.



THE HUDSON'S BAY COMPANY AND THE FUR TRADE 1670-1870

By GLYNDWR WILLIAMS

86 pages. Illustrated

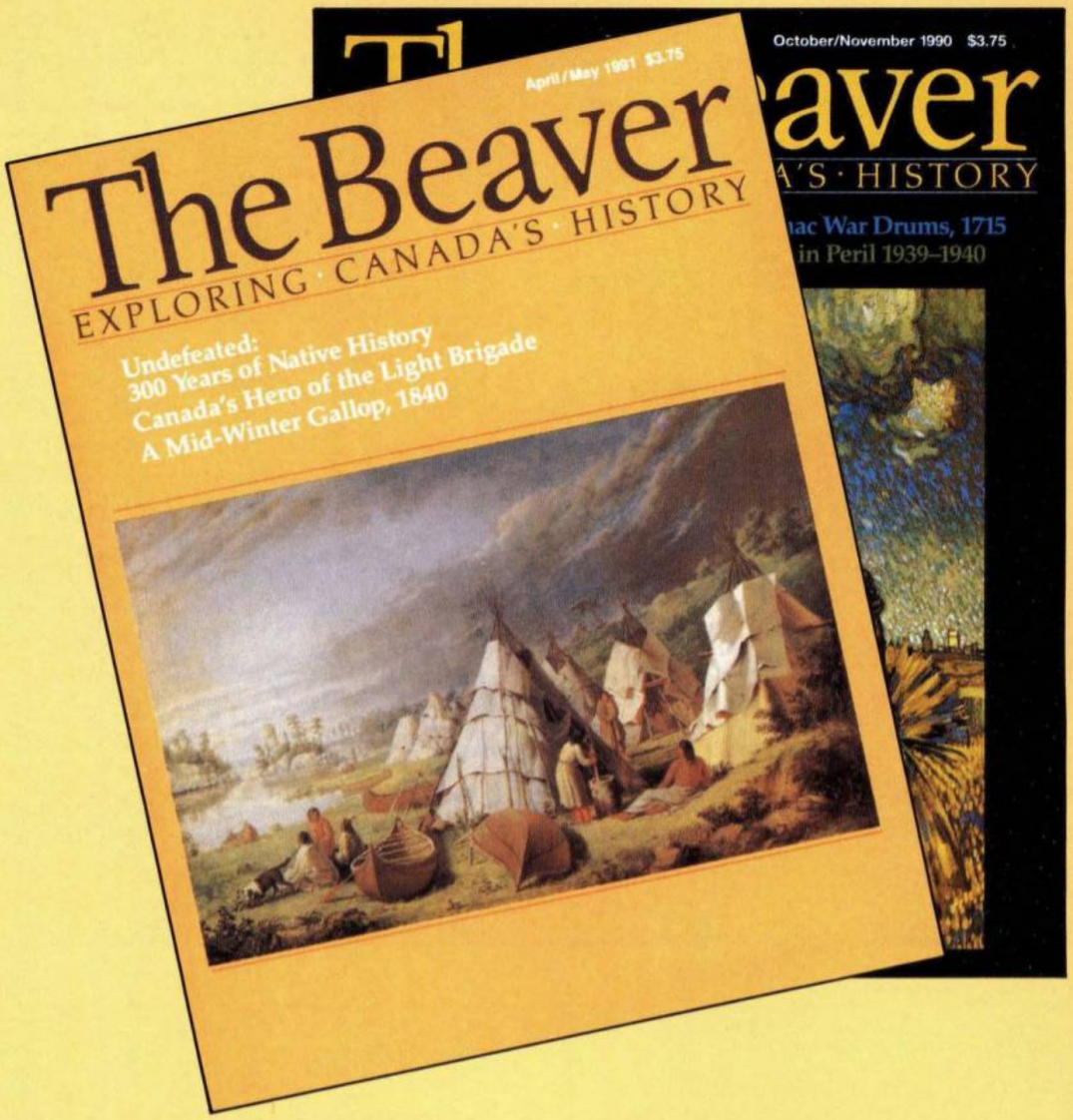
The reprint edition of the Autumn 1983 issue of *The Beaver* is now available at the following prices:

Orders of	1 - 9 copies	$9.50 each
	10 - 49 copies	$8.00 each
	50 or more	$6.50 each

Prices include postage and handling.

Send cheque or money order payable to

THE BEAVER
450 Portage Ave.
Winnipeg, Man.
Canada R3C 0E7



A Timeless Gift

For the armchair adventurer
or the art lover, historian, collector . . .
or almost anyone with an interest
in the past and present
of this northern country and its people . . .

A gift that is new six times every year;
that will be preserved and enjoyed in years to come.

Use the handy subscription form
inside this issue
Subscription rate: $21.50 year for 6 issues

The Beaver
EXPLORING · CANADA'S · HISTORY
450 Portage Ave., Winnipeg, Man. R3C 0E7